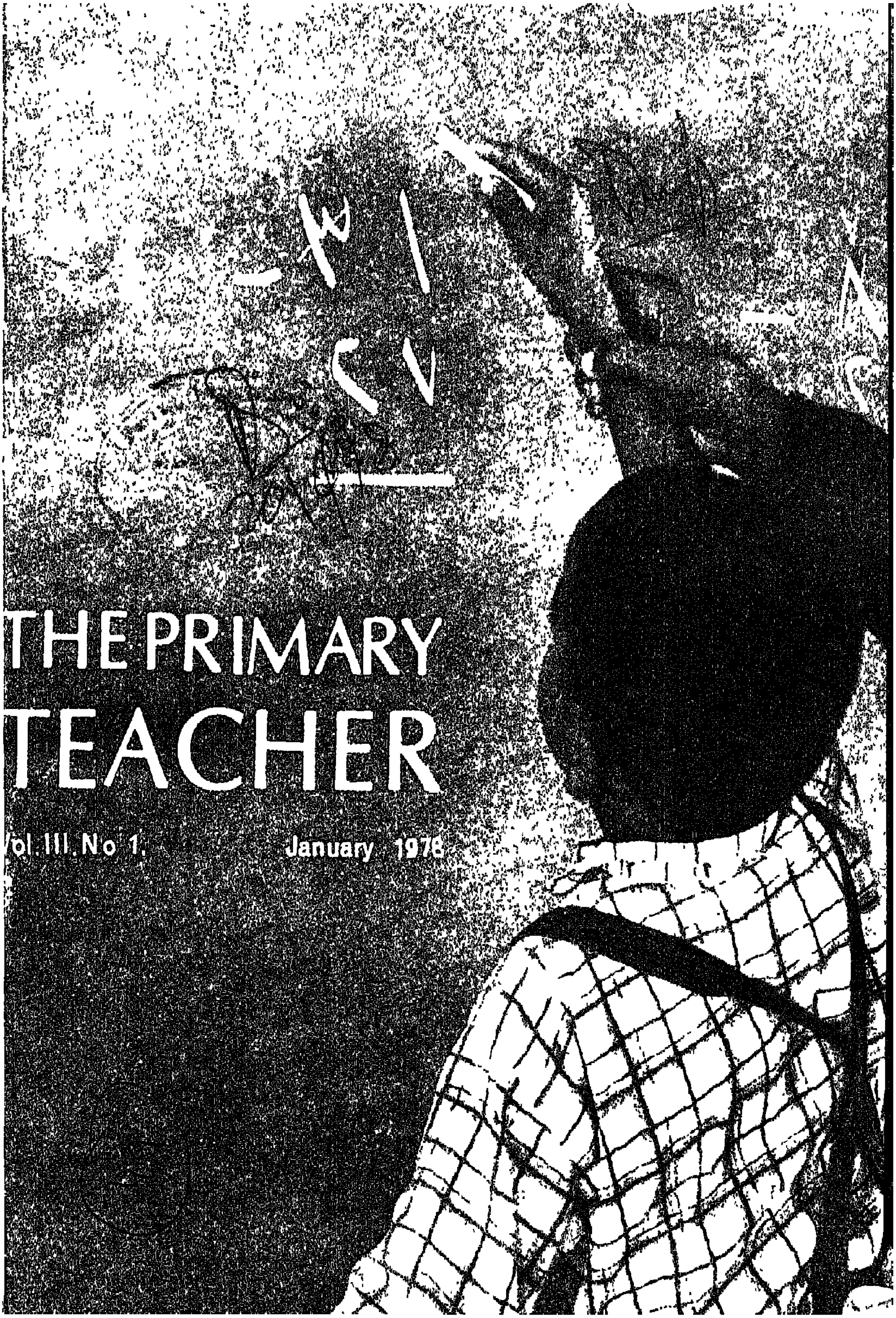

THE PRIMARY TEACHER

ol.III.No 1. January 1978

The Primary Teacher is a quarterly brought out by the National Council of Educational Research and Training, New Delhi.

The journal intends to give to the practising teachers and concerned administrators authentic information about the educational policies being decided on and pursued at the Central level It aims at giving meaningful and relevant material for direct use in the classroom It would carry announcements of programmes, courses of study, etc offered at various centres in India from time to time It would also provide a forum for the discussion of contemporary issues in the field of education.

The major features of *The Primary Teacher* are :

1. Letter from the Director, NCERT.
2. The educational policies concerning primary education.
3. Questions and answers.
4. States round-up
5. Illustrated material for classroom use.

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COVER PHOTOGRAPH
Courtesy U. N. Information Centre, New Delhi

ANNOUNCEMENT

To encourage educational innovations in schools, the Department of School Education, NCERT, has organized two competitions—one for elementary teachers, and the other for secondary and higher secondary teachers.

The teachers are invited to send in reports on innovations which they have successfully tried out in schools and which are replicable in different school settings.

The reports, written either in English or in any of the recognized Indian languages, must reach the Department by 30 May 1978. The reports should not exceed 3,000 words.

Cash prizes of Rs. 500 each will be awarded for the 30 best reports contributed by elementary teachers and the 20 best reports by secondary and higher secondary teachers.

For detailed information the teachers may contact the Field Advisers, Regional Colleges of Education, State Institutes of Education, or the Directorates of Public Instruction.

NEW DIMENSIONS OF TEACHING

We have already talked of new dimensions in primary education. We have made references to the wealth of teaching material that lies in the environment. If only the teacher had a little more leisure and appreciation of his responsibility, he could make greater use of this material. Even those who do not make conscious efforts to relate their teaching to the environment, do in fact draw from the environment spontaneously and unconsciously. For instance, while giving examples of colours and shapes, they keep referring to the forms and colours that exist in nature. In drawing classes, the teachers draw familiar objects from the environment rather than unfamiliar ones. When they take classes in the sun or shade, the setting, or the environment, is there all the time. There are prescribed lesson units on sunrise and sunset, national resources, rural development and the like. All that the teacher has to do is to link the lessons with the environment. Of course, we are not suggesting that no such effort is ever made, but certainly this kind of attempt is not universal and is also not pursued with much enthusiasm.

It is also possible that a few teachers may have thought of utilizing their spare time or holidays working for the cause of adult literacy or rural development. Persons who work in these fields must be well-informed and well-equipped. One must know, for instance, before embarking upon an adult literacy programme, the reasons why such programmes have not always been successful. The teacher might come to learn that the failures occurred because the programmes were not need-based or that facilities did not exist or that the persons involved lacked involvement. The identification of a problem is the key to its resolution.

Rural development could also be taken up by our teachers. Needless to say, the majority of Indians live in villages. Most of our rural folk are poor and lack the means of personal growth. Surely, a teacher is not a know-all. He also cannot offer to the villagers what the Government and the banks have not succeeded in giving. It is not his business to interfere with their life-style or raise hopes that will never be fulfilled. But the teacher could distribute new literature on the use of fertilizers, machine tools, improved varieties of seeds, cropping patterns, etc. He could help the better-off farmers to utilize banking facilities All this amounts to social service. Social service is not a new concept and the teachers are not unacquainted with it. All the same, it needs to be taken up with greater zeal. The teacher cannot afford to confine his activities to mere classroom work. He is paid for his classroom duties but the payment for social work is equally tangible in terms of social welfare. □

Adults Influence Children

MARGARET VARMA

Quality is never an accident It is always the result of intelligent effort. There must be the will to produce a superior thing

—JOHN RUSKIN

HAVE we ever stopped to realize that what children learn—the good as well as the not-so-good—is learned from us adults—from our gestures, tone of voice and expression of feelings ? Children choose their style of life and imbibe the climate of their environment from inference. That adults influence them is a simple fact of social learning. While the source of social learning is not necessarily confined to adults alone, for young children, their parents and teachers are the dominant models and the chief initiators of their social learning.

How influencing are our casual remarks ? Do we adults really influence the orientation of our children's thinking ? Yes, indeed we do and most often quite unconsciously. As teachers and parents, feelings and value judgements are expressed quite casually, little realizing how a careless or passing remark can make a lasting impression on the minds of young children. Even an inflection of our voices does not escape them.

Wherever we go, we hear talk about pressures that grown-ups are under. While we bemoan this lot, we seem to delight in pressuring children—to behave in socialized ways, to be popular, to achieve in school and get to college, to hold their own in a competitive world, to take advantage of all the advantages, to live in a world which even we grown-ups do not find safe and secure.

In the name of education, even more pressures are put by us on children—longer hours at school and loads of homework to be done on return. It is agreed that some pressures would be good and useful—would help to act as a driving force to forge ahead. But pressures put on children indiscriminately will almost always fail, unless there is a deeper knowledge of children.

There is a Chinese proverb that says "A journey of a thousands miles begins with a single step", and it is by taking that step today—attending to our infants' simplest needs *now*—that our adolescents will be able to attend to their greater needs later. To enjoy children, to understand and appreciate how they feel, we adults need to *stay young*—we need to forget the external signs of age like aching backs and wrinkled brows We need to stay young in the head and the heart—we need to *think young* and *feel young*. Emerson expresses this idea beautifully when he says :

We do not count a man's years until he has nothing else to count.

Because children believe, our own beliefs are deepened.

They give in innocence and without question what cannot be bought anywhere. They give us *themselves*.

What are we to give them in return ? Surely it must be more than toys and candy and clothes. And more indeed than can be given in a single day.It must be that which only we adults can create, alone and with others—a better world for our children to inherit. To this hope we need to rededicate ourselves, perhaps by asking ourselves some of these questions... Who am I ? What am I doing ? What do I believe in ? What are my limitations ? And my potentialities ? How can I improve myself? Schopenhauer has said,"Each life we touch enters into communion with us for a moment, an hour or a day. For that moment, hour or day, two lives are enriched or tarnished. For only the light we have kindled within ourselves can illuminate others."

I would like to reflect on three basic needs that to me seem universal—needs that we all have as children, teachers and parents. If we adults can satisfactorily understand them in relation to ourselves, I believe they could be extended to our children, enabling us to influence them in an uniquely individualized manner

I see love as the very first need - - love as understanding, consideration, enthusiasm, devotion. To quote Kahlil Gibran .

What is it to work with love ?
It is to weave the cloth with threads drawn from your heart, even as if your beloved were to wear that cloth

It is to build a house with affection, even as if your beloved were to dwell in that house.

It is to sow seeds with tenderness and reap the harvest with joy even as if your beloved were to eat the fruit.

It is to charge all things you fashion with a breath of your own spirit.

And to know that all the blessed dead are standing about you and watching.

...Work is love made visible.

And if you cannot work with love but only with distaste, it is better that you should leave your work and sit at the gate of the temple and take alms of those who work with joy.

For if you bake bread with indifference, you bake a bitter bread that feeds but half man's hunger.

And if you grudge the crushing of the grapes, your grudge distils a poison in the wine.

And if you sing though as angels, and love not the singing, you muffle man's ears to the voices of the day and the voices of the night.

Discipline, I feel, is a second universal need—discipline meaning guidance, direction, limits. In my thinking 'discipline' and 'guidance' are not mere alternatives. For me, they do not stand as concepts, distinct and apart, but merge into one another, and in this merging the negative connotation discipline has is lost. Discipline for me is positive guidance towards self-direction.

The task of the adults in children's lives, primarily their parents and teachers, is to strengthen their personalities by helping them integate their inner needs with the demands of their environment Children view the world as through a mirror, according to the manner in which elders present it to them—interestingly or uninterestingly, clearly or hazily, filled with much or very little meaning.

Research has proved that adult personality patterns, adult needs, values, attitudes and feelings greatly affect the psycho-social development of children. Of course, procedures for guiding children vary according to the interaction of adult personalities, individual differences and the prevailing circumstances. Our task as adults is to see that children have the kind of experiences that will result in good personal habits and make of the youngsters balanced and integrated individuals. Our responsibility as adults is a great one. Very often our best plans may need reshaping. It is desirable for us adults to recognize that our feeling and ideas about guidance are influenced by our own childood discipline experiences and to try and avoid inflicting these blindly on our children.

It is home where the child first strikes his emotional roots—the roots that connect him with the society outside.

The family is the one group left in which we adults have a say. The home is a refuge from the rush and hurry of the world outside. The home can still be what the members of the family wish it to be by their choice and concern, a place where personal expresssion is not restrained and growth is wholesome. For children, a home is more than a place. It is an environment of feelings and attitudes. Children need in the home the degree and type of guidance that enables them to attain self-control. Children must feel that they are wanted and loved, that they occupy an important place in the lives of their parents and family. Love and accord between the parents themselves and gentleness and kindness and fairness in all dealings with children generally help lay a foundation for family stability that is necessary for the development of healthy human relationships.

Children thrive on an atmosphere of tolerance, not on an indulgent one. They benefit from an atmosphere where they are cared for and yet do have limits. Guidance, control and even restraint and punishment can be administered without damage to family unity if the behaviour of the adults is consistent, firm and fair and the corrective measures supported by love and understanding. Undoubtedly, the methods of punishment must depend on the ages of the children. Punishment, to be of value, must never take from children their self-respect or their confidence in themselves or make them feel that they are no longer valued.

Opportunities for experiencing a sense of trust and a sense of independence, is the third universal need. Children should be given opportunities to feel secure in themselves and to seek independence with trust and love. It is our job as adults to give children opportunities to form relationships and make connections between facts, so that they may go forward unafraid to face new adventures, returning when necessary to the adults for love and guidance and further opportunities for gaining security and being independent.

It needs very little imagination to see that children who live in this bewildering decade dwell in a world quite different from that of their parents. But we should strive to keep the gap between the generations and the gap in understanding from widening. Gibran has this to say :

> *The astronomer may speak to you of his understanding of space, but he cannot give you his understanding.*
>
> *The musician may sing to you of the rhythm which is in all space, but he cannot give you the ear which arrests the rhythm nor the voice that echoes it.*
>
> *And he who is versed in the science of numbers can tell of the regions of weight and measure, but he cannot conduct you thither.*
>
> *For the vision of one man lends not its wings to another man.*

Because today's world is so different, we adults need to see that our children's environment is enriched by providing them with social, educational and creative experiences that would enable them to grow into better adjusted human beings than their elders. We adults need to see that children are liberated from dead customs, from rigidity and dogmatic thinking.

We adults need to see that great respect is paid to children's individual differences; that we do not hurry them, but wait till they are ready; that we give them ample opportunities to think for themselves and to do things for themselves.

The present age has magnified the problem of educating our children for survival, self-realization and participation in society. The task of adults, both parents and teachers, has changed from one of transmitting great masses of information to one of facilitating learning through inquiry, discovery and creative thinking. Our greatest obligation to our children is to prepare them to understand the world in which they will live and not a world we would prefer to live in. □

Talking it Out with the Art Teachers

SANTO DATTA
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IN the October '77 issue of the *Primary Teacher* we studied the nature of lines, particularly the straight lines—vertical and horizontal. We also discussed the 'meanings' of vertical and horizontal lines and their combinations.

In this issue we will take up the curved line.

A curve or a combination of curves and straight lines have numerous 'meanings'. And they are amazingly different from each other. Painters and sculptors have used curves to suggest power, violent motion, softness, motherly tenderness, upward or downward directions or movements, rhythm, and many more 'meanings'. If we are to look at a painting or sculpture and pay attention to the lines, we may understand the intention of the artist better. But most of the time we are carried away by the beauty of the colours in a painting. [*But then there are a good number of paintings in which colours or light-and-shade are the only theme or subject matter. For appreciating such works of art we have to study the meanings of colours and light-and-shade, which we will take up later*].

Let us look around and find out how the above meanings of the curve occurred to us. Our thinking and our appreciation of things grow with our growing experience of the external world.

Look at the curved wings of a bird in flight(Fig. 1). They have the power to lift the body of the bird in the air. And the bird stretches its wings straight when it wants to come down gliding.

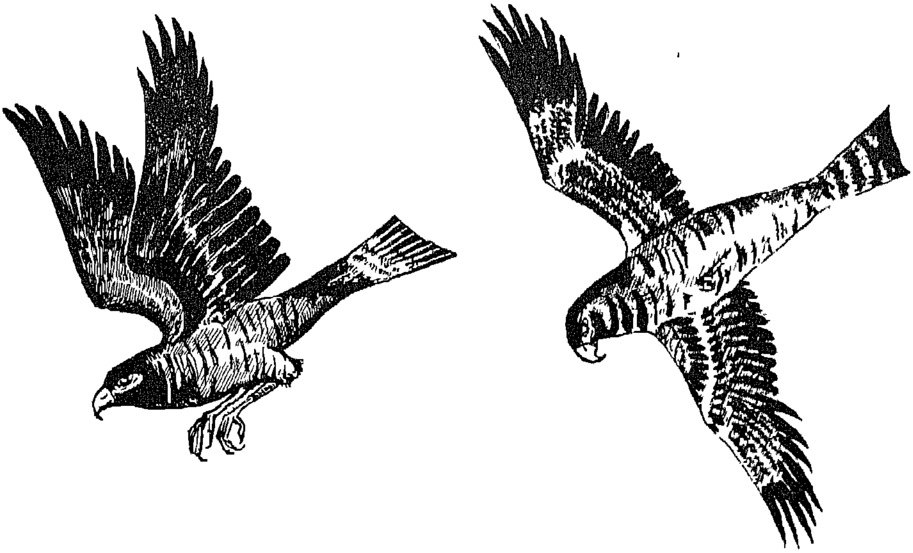
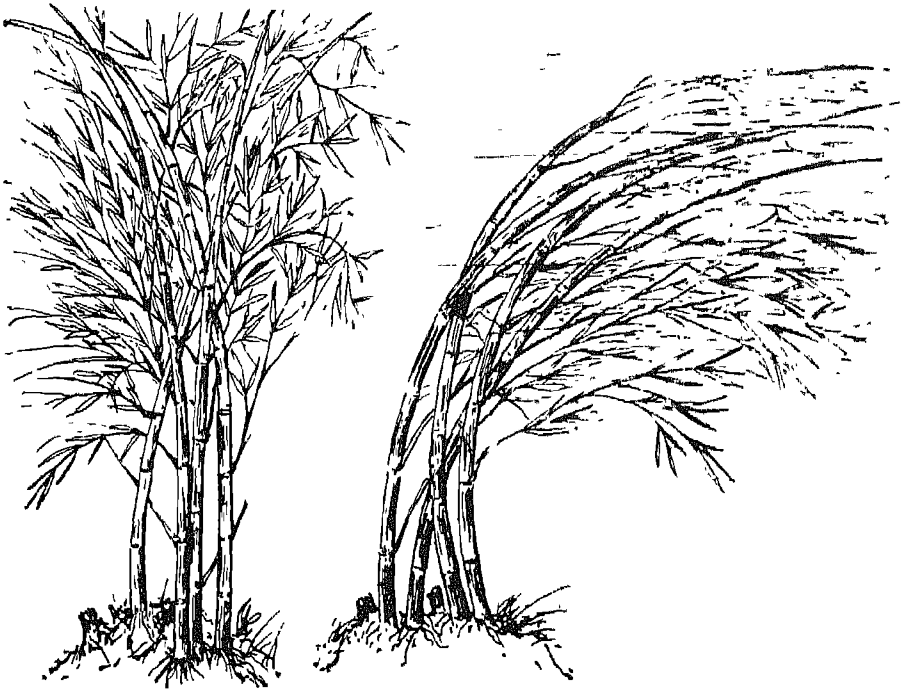


FIG. 1

FIG. 2



Let us take up another familiar object—a bamboo grove. When there is no strong wind blowing, the bamboos stand vertically up, bending a little with the weight of their foliage.But caught in a storm they bend down earthwards, to form curves (Fig. 2). Their curved position gives them the strength to resist the storm. The more they bend, the faster they come back to their normal position. This you can check up with the position of your own body when you are throwing away something. To gather strength for a hefty throw you bend your body in the opposite direction—in a curve (Fig. 4). And when you make the throw, your spine is bent in the curve of a bow drawn to shoot an arrow at a target.

That is why a curved line in a picture sometimes suggests tension. But then what is tension ? A body is said to be in a state of tension when it is forced to bend or move in one direction and it uses its own force to come back to its normal position. The example of the bamboo grove has already been given to explain this to you.

Now let us see if, without describing or showing anything, lines can suggest tension or movement. Let us study the figures given below (Fig. 3).

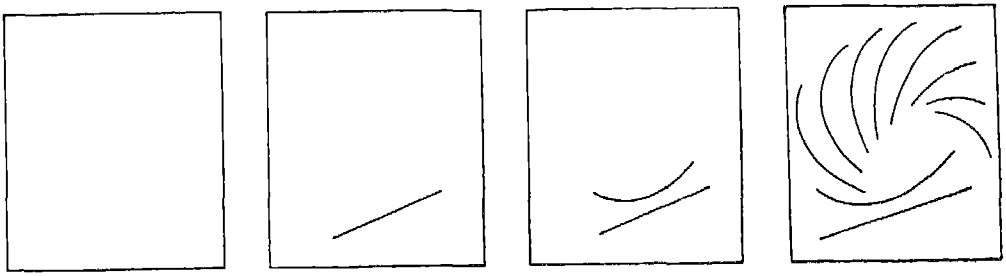


Fig. 3

In the empty space enclosed in the first diagram, you will notice, there is no movement. But in the second, the diametrical straight line, if you notice it in relation to the four sides of the frame, is creating a movement by suggesting different angles in relation to itself and the four sides. In the third, the addition of a curved line against the straight diametrical one suggests more movement. And the movement becomes violent in the fourth diagram.

This is to prove again that lines, while not making a picture of 'anything', can suggest movement, direction, violence or even tenderness. We will come to that later.

Now we will study a few more examples of curves or curved lines in other man-made things. A bridge across a river or a canal will be a familiar example.

A bridge which is built horizontally across a river (see the diagrams on p. 13) solely depends upon the support of its pillars below. And it cannot carry as much weight as a curved bridge without them.

You may ask : why is a curved

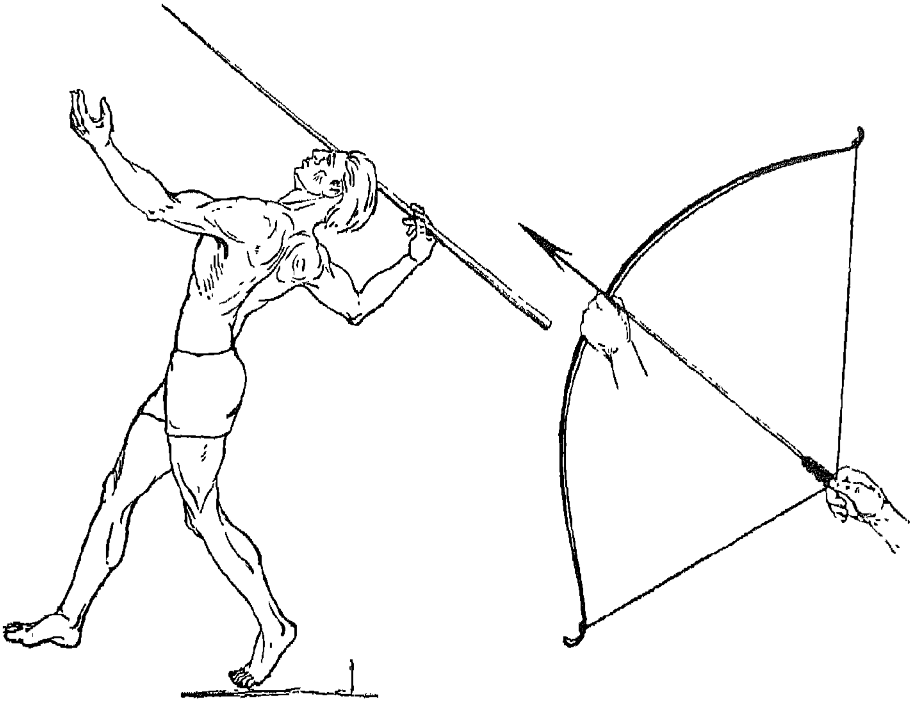


FIG. 4

bridge stronger than a straight horizontal one?

The answer is : because a curved bridge can shift the weight of the traffic to its base points on either side of the river. A straight horizontal bridge cannot do this and the weight of the traffic comes down vertically on the supporting pillars placed below and makes the same load much heavier for them. We would follow this better with the help of diagrams.

In the first diagram we see that in the case of a horizontal bridge, the total load falls on the central point of the bridge, and this pressure may soon cause it to reach a breaking point, as shown in Fig. 5.

In the case of a curved bridge,

A curved line has a surprisingly large number of meanings in different contexts. In some it means tension, coiled energy and a foretaste of violent action. In other contexts it means tenderness, suavity and relaxed restfulness.

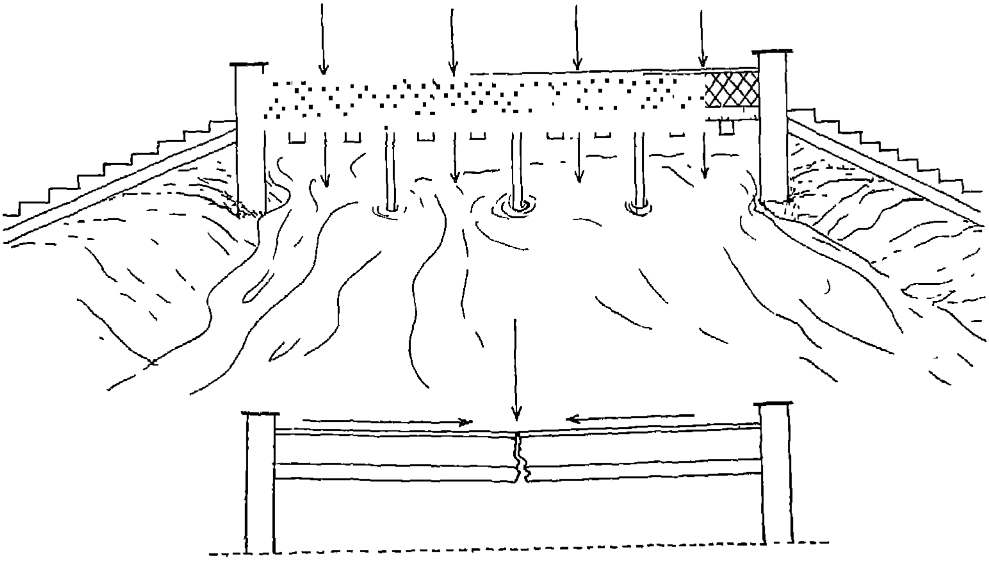
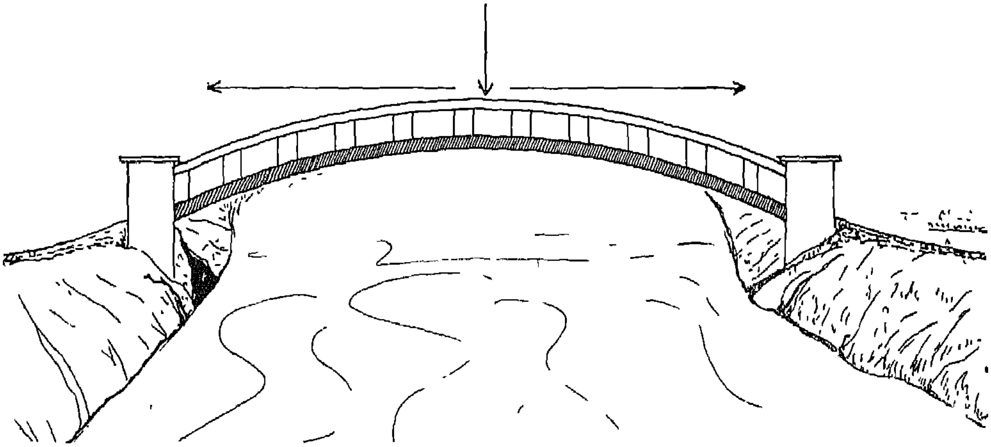


Fig. 5

Through centuries the engineers learnt the enormous load-bearing capacity of a curved structure. And they have used this knowledge in the making of bridges, domes and arches.

Fig. 6



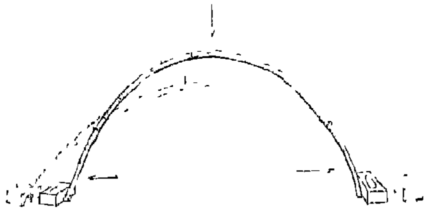


FIG. 7

however, all the vertical pressure of load on the top of the curve of the bridge is shifted horizontally to the two base points on either side of the river. This also helps the brdige to hold on to the ground more securely (see Fig. 6).

You can easily verify this nature of the curve by a simple experiment. Take a thin slice from a bamboo pole and place it in between two bricks in a curve as shown in Fig. 7. You will notice that the pressure you apply on the top of the curve is being shifted to the two points of support made by the bricks, and with increasing pressure the bricks will start sliding in two opposite directions. This shows how the vertical pressure of a load can be shifted horizontally with the help of a curve.

Now perhaps it is clear that it is not an accident that a curve sometimes means power, tension or violent movement. In the next issue of *The Primary Teacher* we will study the meanings of curved lines in architecture, painting and sculpture. ☐

About Nature, the 'Dear Old Nurse'

SHIV K. GUPTA
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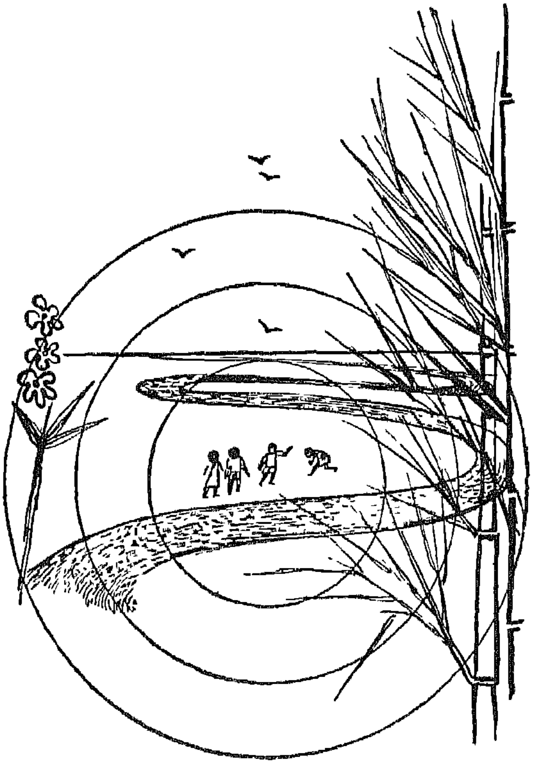

WILLIAM WORDSWORTH described nature as a "dear old nurse". Children adore nature. They like picturesque views, the chirping of birds and rain showers—in which they enjoy getting soaked. Their senses are sharp and perception acute. They enjoy being close to nature. They will mimic animals' calls, copy their gait, wonder about the flight of the birds, and, if they get the opportunity, paint them and write about them. Talented children often compose poems on nature. Nature is the best teacher for all children, and a dear old nurse for those who are emotionally deprived. Froebel experienced the healing touch of nature and education of children became his life's mission. Rousseau was annoyed with the artificiality of his contemporary society and asked people to stay away from the cities which 'devoured men'. Rabindra Nath Tagore brought children of his school, Shantiniketan, close to nature.

The city-bred man of today has become so engrossed in his day-to-day problems and his thinking has become so hardened that he wants his children to become objective in their outlook and be prepared to fight for survival at as early an age as possible. So much so that the children's natural link with nature is severed at a very tender age. Such a child, by force of circumstance, is robbed of his childhood. A potent source of joy and peace is snatched away from him at an early age. One reason for the ills of the modern age is that people keep away from nature. Nature with its abundant beauty

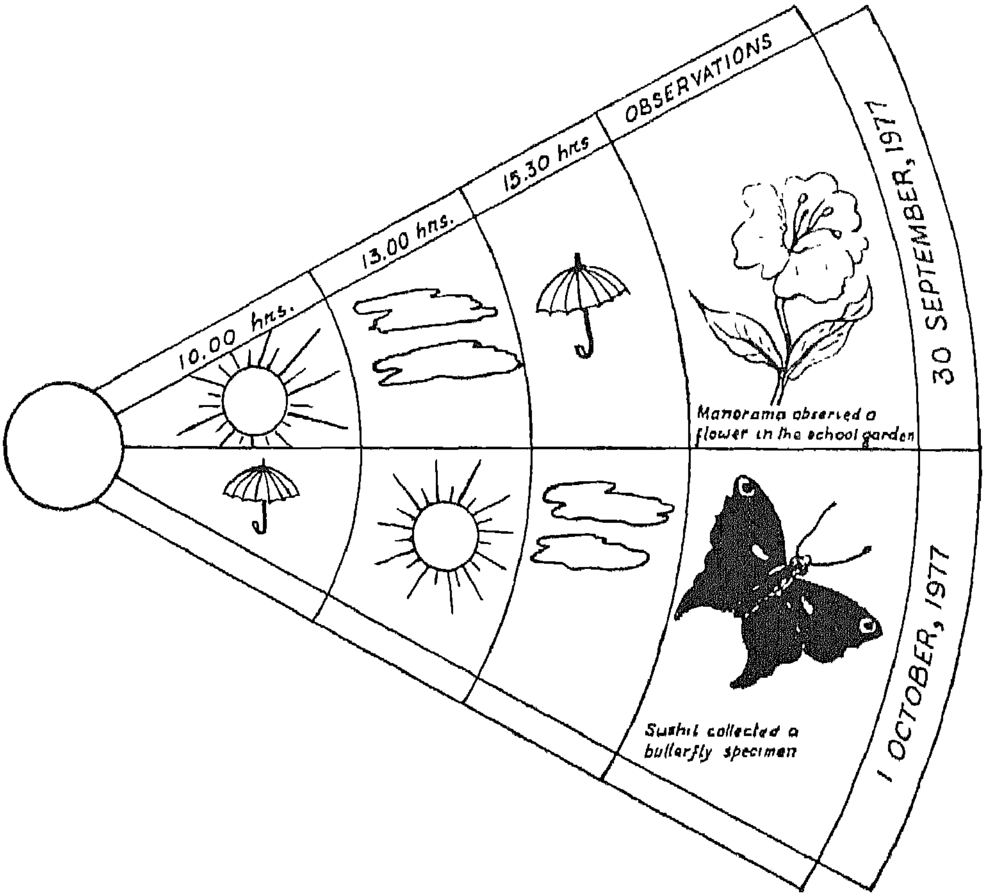
OBSERVATIONS
10.00 hrs.
13.00 hrs.
15.30 hrs
30 SEPTEMBER, 1977
1 OCTOBER, 1977
Manorama observed a flower in the school garden
Sushil collected a butterfly specimen

FIG. 9 A section of a weather chart

has the power to refine emotions. The modern child, caged within artificial barriers, misses the soothing balm of nature.

The best recourse for the teacher would be to let his pupils roam free in nature at least three hours a week, and let their curiosity be awakened. They should be encouraged to ask as many questions as they can about the things they observe. It would be a good test for the teacher also. But there is no competition between the teachers and pupils here. Both are partners in learning from nature. One instance will make this clear. When the children asked Anna Botsford Comstock* about the insect which cut the leaves of the rose plants in their gardens in a particular round shape, she replied that the plants were in their own gardens and the insect must also be there in their gardens. Hence the children should try to find out the insect themselves. She reports that the children discovered a number of insects which visited rose plants and ultimately discovered that it was a cutter bee which cut the rose leaves in a regular round shape. Any science lesson begins and ends in curiosity. Sustained curiosity is the keynote in the teaching of science and nature study.

---

* Anna B. Comstock, *A Handbook on Nature Study*

All children may not have an equal love for nature. The teacher has sometimes to cultivate it by launching appropriate projects. For example, a display board may be reserved for nature study. Filling in entries on a weather chart would be an interesting daily exercise (Fig. 1). The children may cut the shapes of the sun, clouds and umbrellas out of coloured paper in their craft class. Morning, noon and afternoon weather could be indicated by affixing appropriate signs on the weather chart. New observations made by children, say on flowers or birds or insects, could accordingly be displayed in the apporopriate column. The child who makes the observation may also be mentioned in the column. That will encourage him in his efforts and will encourage others to emulate him. Temperature, direction of wind and rainfall measurement may also be recorded by the senior students, who may prepare consolidated graphs to show the weather trends of the entire month. One precaution is necessary : all the children should get their turn to participate in such projects.

The children's own gardens would be of immense help to them in observing the growth of plants.

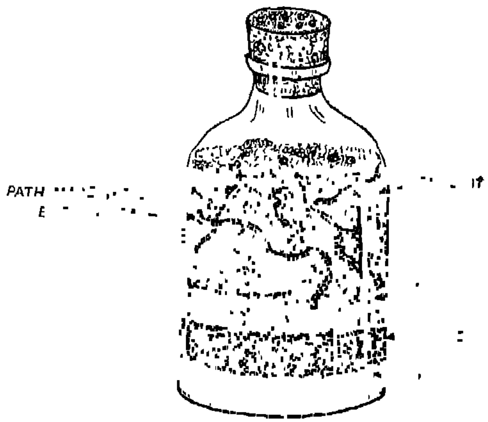

FIG. 2 A vivarium

They could also visit the zoo to study animals. Herbaria, vivaria and aquaria would also provide good opportunities for observation. Preparing a vivarium does not cost much. Take a glass bottle. Clean it thoroughly. Then fill it with different layers of materials—clay, pebbles, sand, sawdust, etc. Put an earthworm into it. Close it with a perforated stopper (Fig. 2). Let the children observe the habits of the insect in this vivarium—what it feeds on, etc.

Rythmes and action songs about animals are liked by children. Stories about animals fascinate them upto a certain age. Proverbs and folklores could be collected which are related to the forces of nature. These would communicate information of immense value to the children.

If these activities are difficult to conduct children should at least get some free time to enjoy nature. The guidance of the teacher will help them immensely. ☐

The Role of Teachers and Students

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Baroda

EDUCATION is a fundamental means of bringing about any desired change in society—a fact accepted throughout the world. This can be attained only if the schools become real centres of learning.

Primary education forms the base of any educational system. It helps develop the personality of the child and determines his future. Recent psychological research has shown that favourable attitudes towards life develop in the earliest stages of child growth. The period between three to ten years assumes the greatest importance from the point of physical, emotional and intellectual development.

The importance of primary education cannot be over-emphasized. It is the concern of every individual in the society to strengthen school programmes, which are of national importance. It is observed that the parents are not actively involved in the development of primary education. To what extent can a primary school teacher alone fulfil the task? There are many problems facing him. He cannot alone solve all the problems. He finds it difficult to meet the changing demands of society. The teacher requires help from all sections of the society. The teacher is likely to lose interest in his work in the absence of necessary encouragement from the government and the public.

At present there is no link between the high schools and colleges and the primary schools. Even the training institutes have little contact with the school programmes. The following crucial problems need our attention :

i) Enrolment and retention of children;
ii) Utilization of existing facilities;
iii) Qualitative improvement and new curriculum;
iv) Physical, health and art education;
v) Talent search among children.

i) Enrolment and Retention of Children

Much effort was made by the state governments to fulfil the constitutional obligation under its directive principles. According to Article 45 of the Constitution, the State should strive to provide free and compulsory education for all children upto the age of 14 years. This was to have been achieved by 1960. Even after 1977 the targets have not been attained. According to data collected in 1975, 83 per cent of the children in the age-group of 6 to 11 years are enrolled in schools and 37 per cent of the children in the age-group of 11 to 14 years.

The percentage of dropouts is high—60 per cent at the primary school level and 75 per cent at the higher primary level. That means the dropout rate is still very high. In some areas even the midday meal scheme cannot increase attendance. According to a research finding, the midday meal scheme certainly helps to increase enrolment. But though there is an increase in school strength to the extent of 76.2 per cent, the midday meal scheme cannot be said to have produced a corresponding increase in the attendance of pupils.

How to avoid the huge wastage at the primary stage is a problem that should occupy us all.

ii) Utilization of Existing Facilities

It was rightly pointed out by the Kothari Commission report that educational standards depend on:

a) utilizing available facilities;
b) the quality of different inputs;
c) the structure of the educational system, and
d) the duration of education.

Out of all these factors, utilization of the available facilities was considered the most important. There was a time when the primary schools were not provided with suitable facilities Now the position has changed. The government and other agencies like Unesco have come forward to supply kits and varied instructional material. The author has observed that in some schools the kits are not even opened. In some schools they were kept lying around for four years. The teachers did not use even the existing library and laboratory facilities.

iii) Qualitative Improvement and the New Curriculum

Apart from the utilization of the existing facilities, our attention should be devoted to the qualitative improvement of the curriculum. The new pattern has been introduced in almost all the states in India. In the new curriculum, the emphasis has been shifted from teaching to learning. Work experience, physical and health education find a suitable place in the new curriculum. But if the teacher is not oriented properly to the new curriculum and proper-

High school, college and university education — the high-rise superstructure of our educational system—often makes us forget its foundation, the primary teacher.

ly trained, the scheme cannot be a success.

iv) Physical, Health and Art Education

Good habits of health and sanitation have to be inculcated in the early stages of child development. The teacher is not aware of these problems and he has no requisite training. These programmes should be introduced as an integral part of the school system.

v) Talent Search Among Children

We need competent and trained manpower in every walk of life. As Whitehead says, "In the modern world the rule is absolute—any race which does not value trained intelligence is doomed". The teacher has to stimulate children who possess and exhibit talent in creative activities. Developing talent at the primary stage is essential for the country.

Suitable programmes to spot talent at the primary stage must be introduced.

Role of the Primary School Teacher

To a large extent, a solution to the above crucial problems lies in the hands of the primary school teacher. That the teacher plays a dominant role in the growth of education is undeniable. He has to take the responsibility for the development of the personality of the child. He should be aware of the new developments in education. After the introduction of the new pattern, the involvement of the teacher has become more necessary than ever for the success of the programme. Apart from having a good knowledge of the latest developments in education, he should have a lot of imagination to plan his daily programmes. Providing work experience for children needs a lot of preparation and coordination on the part of the teacher. The government is organizing many in-service programmes. The teacher has to make use of these fully to enrich his own knowledge.

He has to seek the cooperation of the parents, the high school teachers and students to attain the target of cent per cent enrolment of primary school children and their retention in schools. For qualitative improvement of the curriculum, he has to follow modern methods and techniques of teaching. The teacher has to provide opportunities for children to develop their creative thinking. The Kothari Commission report emphasized "the need to convert a school system based primarily on modernization into one involving understanding, active thinking, creativity and what has come to be called problem-solving".

Role of High School Teachers

As mentioned earlier, the primary school teacher alone cannot solve all the problems. He needs strong support from other teachers working at various stages of education. The high schools get their input from primary schools. A better standard in high schools can be expected if high school teachers also assist in primary school programmes. The government has already taken some steps to coordinate the activities of primary and high schools. But the impact has not been significant. A few areas where the primary and high school teachers may work together are suggested below :

a) Deciding the objectives of teaching at the primary schools;
b) Organization of instruction;
c) Proper use of instructional materials;
d) Using community resources.

Periodical seminars and discussions among the teachers help to improve their professional competence.

Role of College Teachers

Involving the college teachers appears to be a difficult task. We find only a few college teachers who are interested and prepared to cooperate in such programmes. Highly qualified teachers with proper motivation should be posted in the primary schools. Their experience can be utilized in the following areas:

a) Deciding upon the best content and analysing the content;
b) Applying the knowledge to new situations;
c) Using psychological and other special services in educating exceptional children.

> **Involving the college and high school teachers in the effective planning of primary education is the first meaningful measure to eradicate illiteracy.**

Role of College Students

The country has at its disposal tremendous student power. Unfortunately the country is not able to utilize their services for the growth of the nation. If properly motivated, they can participate in community and social welfare activities. The students should be encouraged to participate in community and educational programmes in villages. During summer vacations and at the beginning of the academic year the students can assist the primary school teachers in the activities mentioned below:

a) Enrolment drive
b) Checking dropouts
c) health programmes
d) Physical education and work experience programmes.

Role of the Community and Government

The community has to assist

in establishing good teacher-parent relationships, helping to improve school buildings, equipment, etc. The government has to organize in-service programmes in a more effective manner All efforts should be made to improve the status of teachers.

Many reports have been published on primary education. Much literature by way of research is also available. In spite of constitutional guarantees our country is far behind the targets. The population of children and new knowledge about the physical and social world are increasing very rapidly. But the supply of trained elementary school teachers continues to lag behind the demand. Primary education should receive more attention. Efforts should be made for qualitative improvement so that it helps children grow into useful and responsible citizens. The teacher must come forward to shoulder greater responsibilities in school improvement programmes India cannot afford inefficient teaching and poor learning in its elementary schools. If we want to revolutionize our education, the change should start at the primary stage. □

The Integrated Science Approach

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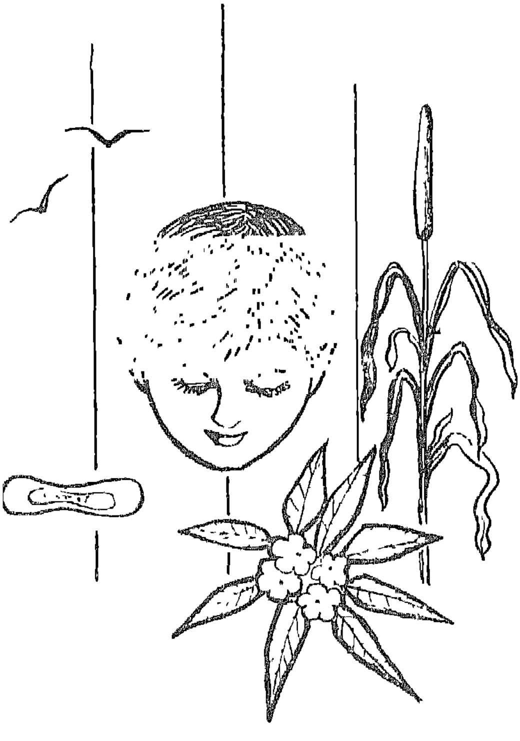

THE EDUCATION COMMISSION (1964-'66) felt that there was a need to transform education so as to relate it to the life, needs and aspirations of the people, and to make it an instrument of social change. Science is ideally suited to serve this end. It is intimately related to the means of production, communication and transport. Science is all-pervasive and without it one cannot understand the complex society we live in today. Whatever be the aspirations of the people, science and its achievements will have to be used to realize them.

It is pertinent to ask the question: What is science ? What is there in its nature that makes it so potent and important in the present-day world ? It is necessary to know the answers to these questions to keep science teaching in consonance with its nature and spirit, and get the desired results.

Science is usually taken to mean 'systematized knowledge'—the facts, generalizations, theories and laws, the conceptual models for viewing and interpreting natural phenomena. These are the achievements of science. Besides, there are numerous scientific inventions that have a tremendous impact on our lives and living conditions.

But 'science' also stands for scientific method — observation, measurement, classification, communication, hypothesis, experimentation and analysis. No product of science has come out except through scientific methods put to use by someone. It is necessary to develop skills in the use the methods of science for a satisfying adjustment to the ever-changing pattern of our physical and social life. Science is a part of our present-day culture because of its twin aspects of production and method.

How should science be taught in view of this conception of science ?

Since all scientific knowledge has emerged through scientific methods, it is proper to start with helping children to develop skills in the methods of science. Observation, being the basic skill, gets the first place in this scheme. Children are encouraged to observe their environment and communicate about it.

	Selected/contrived or improvised		
Environment	(Specify)		Environmental situation
Inquiry	Learning situation	Activities	Learning Outcomes

Environment is a very wide term and may mean all sorts of situations . physical, biological, social and so on. Observation is an activity carried out through the use of the senses; it can therefore be useful only in certain environmental situations. The teacher has to select an environmental situation appropriate for the objective of his teaching. The environmental situations are already there. The teacher only has to select one—he has to point it out to the children. Sometimes, the primary teacher may have to contrive or improvise the situation, using locally available resources.

Given that the children are having first-hand experience in a suitable environmental situation, the teacher should organize children's activities for achieving his objectives. The activities may be of different types, based on the nature of their organization. They may be : (1) Demonstration, (2) Group work, or (3) Individualized work. Based on the nature of tasks, these activities may be classified in another way. For example, children may be required to describe things or events orally or on paper. In addition to verbal description, they may also draw figures, etc. Children may collect, compare and classify things. Or the activity may be an investigation wherein children experiment to get answers to a specific question, say, how much sugar one can dissolve in a cup of water. Activities may be of different types, but invariably they should have a point of inquiry formulated as a question.

Questions defining points of inquiry may be categorized on the basis of key question-words. The key question-words are · what, which, when, where, how many, how much, how long (time), how and why. The inquiries demanding answers to questions starting with 'how' or 'why' should be taken up at later stages when children are more familiar with the environmental situation.

Let us now consider what is meant by the term 'integrated' in this connection.

The word 'integrated' may be used in different contexts. Science is both 'product' and 'method'. If children acquire new knowledge in science (i.e. product) through certain 'methods' one may speak of the product being integrated with method. The integration may also be of different disciplines of science, such as physics, chemistry and biology, through development of content. Units in which several scientific disciplines are integrated may be devised, such as 'materials around us', 'nature and composition of substances', 'life science', 'general continuity' and 'evalution'

In the primary science curriculum the child's environment is the integrating factor. The syllabus envisages a study of different aspects of the environment: plants, animals, earth, etc. Learning experiences are organized and tapped not for the outcomes that pertain to any single discipline, but for a host of major and minor ideas that may belong to social sciences or just to happy, healthful living. Thus the environment provides the basis of integration.

What are the advantages of an integrated approach ?

The curriculum is meant for the benefit of the pupils. The entire exercise will be fruitless if the learning experiences and intended learning outcomes are not meaningful to the children. To have meaning, these experiences should come from the child's own environment. In the environment, situations do not belong to physics, chemistry or biology. They are perceived as meaningfully integrated at different levels of our comprehension. Hence an integrated approach would be more comprehensible to the children.

In the primary science curriculum the 'child's environment is the integrating factor.

In a disciplinary approach, the treatment of science content is formalized, for an understanding of which, acquaintance with some basic terms and concepts is essential. This may need greater maturity than is expected in the case of primary school children. Hence the integrated approach is more suitable for them. Further, the disciplinary approach creates some practical teaching difficulties: (1) The number of teachers required becomes large, since at least one teacher is needed for each discipline; (2) evaluation or revision takes up more time; (3) the need for laboratories and formal equipment becomes urgent and poses financial problems.

Let us take some examples to illustrate our views of the integrated science approach as based on the learning situations availalable in the child's immediate environment. Take, for example the idea—'materials exist in different states' under the unit 'materials and their properties' in the class III syllabus.

Children are familiar with many materials. They can even name a few. A teacher may start by writing down on the blackboard the names of the materials mentioned by the children. Through discussion, the class may try to arrange these materials in the following categories: (a) materials like stone, (b) materials like water, etc. The children may then generalize that materials in category 'a' are solids that those in category 'b' are liquids, etc.

This activity is based on children's past experiences in day-to-day life. The activity employs the scientific methods of communication and classification. But, it has a drawback. It does not use a concrete learning situation to develop the concept.

The teacher may therefore arrange the materials for classification. Or, still better, the children may be asked to bring samples or familiar materials to the classroom. The environmental situation may thus be contrived by bringing different materials to the classroom for close observation and study.

For turning this environmental situation into a learning one the teacher (or one of the children) has to make an enquiry. What materials are like stone or water ?

A number of activities may be organized on the basis of this enquiry. Children may be asked to put materials like stone in one given place, say a corner of the table or room. Or they may be required to name or just point out the materials resembling stone

There may be different ways of organizing this activity. Children may be told to complete the activity individually—a child picking out one thing resembling stone and then another.

The activity may also be organized as group-work wherein the entire class is divided in groups of 5-7 students and each group tries to classify materials they have brought to the classroom.

The teacher's vital role lies in stimulating the children to think by asking questions. When a child says some material belongs to the category of stone, he may be asked, 'Why do you say that brick is like stone ?' or 'Why do you think water is not like stone?'

To provide learning situations for the children, the environment has a tremendous potential.

The Department of Education in Science and Mathematics. NCERT, is organizing, in collaboration with the UNICEF, four regional workshops for developing the concept of using environmental learning situations and improvisations for the teaching of primary science environmental studies. An instructional guide will be prepared by the workshops for helping the teachers to select, contrive or improvise learning situations based on the environment of the child. ☐

Physical Education at Primary Level

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IT IS NOW a well recognized fact that an efficient system of education should encourage the concurrent development of a good physique, an alert intelligence and a sound character. These qualities are mutually interdependent and it is beyond question that an unhealthy condition of the body retards the development of the mental and moral faculties. Healthy physical growth is essential for intellectual growth. As such health and physical education is an integral and essential part of general education. The Education Commission (1964-66) therefore recommended that physical education should be a compulsory subject at the school stage. Under the new 10+2+3 pattern of education a provision for health and physical education as a subject has been made in the primary school curriculum. This is indeed very encouraging and a step in the right direction. It is especially during the period of growth at the primary stage, when the body and mind are immature and plastic, that the beneficial influence of physical training is most marked and enduring. Prof. James F. Conant, President Emeritus of Howard University, said that if he were to name one educational programme that had the highest potential of reducing the problem of school dropouts, he would select physical education.

The objectives of imparting health and physical education in the schools is to develop physical and psychological health, essential qualities that enable the child to function effectively in society. In brief these objectives may be stated as follows:

1) *Physical growth:* This enables a child to do the day's work without undue fatigue and to have additional energy reserves
2) *Development of social competencies:* Cooperation, team spirit, tolerance, etc. in day-to-day relations are sought to be developed.
3) *Emotional development:* It leads to individual adjustment and adjustment with others, relaxation, satisfying self-expression, confidence and poise.
4) *Healthful and integrating recreation :* Recreation serves to reduce the stres-

ses and strains of everyday life.

5) *Healthful living:* Healthy habits that help eliminate unnecessary strains and illness are sought to be inculcated.
6) To help establish *appropriate balances* between work, play, exercise, rest, recreation and relaxation in daily life.

Keeping in view these objectives, the activities that are to be included in the curriculum for imparting health and physical education at the primary stage must be so designed that they may, if rightly used and intelligently interpreted, yield an abundant harvest of recreation, improved physique and health. However, health and physical education still remains a neglected subject at the primary stage and wherever it is being introduced, it is being done so with utter disregard to the general principles that should govern a programme meant exclusively for children of tender age (6-11 age group). The activities at the primary school level are not to be organized in a formal way as they are being organized at present. The programme has to commence when the child first attends school and continue at least throughout the period of growth. Frequent opportunities for outdoor exercise have to be provided by the school. The recreative element is not to be neglected at any cost. A health and physical education programme may be organized in a primary school on the lines suggested here.

A. Activities Relating to Health Education

1) Children must be told about body care, care of hair, teeth, nails, etc. Uniforms, shoes, satchels, books, etc. must be kept clean. The need of a daily bath must be impressed upon them There should be toilet facilities in each school.
2) Healthy sanitary habits should be inculcated.
3) The use of the handkerchief should be taught to children.
4) The habit of putting waste material (torn pieces of paper, leftovers from the midday meal, etc.) in the waste-paper basket should be developed.
5) The habit of cleaning slates with a sponge or a wet piece of cloth should be encouraged, and the habit of using spittle for the purpose should be checked.
6) Correct eating habits should be inculcated by organizing midday meals. The school may supply the meals or lunch packets may be brought by the children from home. It is to be emphasized that the children must wash their hands before taking meals, sit properly at a fixed place to take meals, chew the food properly and rinse the mouth afterwards.
7) Proper posture while sitting, writing, standing or walking must be developed

8) Drinking water arrangements in the schools must be good.

B. ACTIVITIES RELATING TO PHYSICAL EDUCATION

I. *General instructions*

1) In the first two classes it is advisable to use the whistle as a signal to stop only. Gradually the use of whistle may be increased so that the children learn to respond promptly to a signal and to control their movements.
2) Before the lesson begins and again at the end it is advisable to tell the children to take deep breathing exercises. This will prove more beneficial than any formal or informal exercises at this stage.

II. *Activities* (To develop the fundamental physical skills of running, jumping, balancing, hopping and skipping)

1) *Introductory activities:* Running at a signal; running to 'homes' in teams; skipping; high jumping; brisk walking; walking on heels or toes; individual skipping with a rope, etc.
2) *Rhythmic activities:* Several rhythmic exercises, e.g. exercises with the help of lazium and tipri (for Classes IV and V) may be organized.
3) *Class activities:* Imaginative play-motion story (particularly for Classes I and II); running and jumping in marked spaces; running in twos with partners; bouncing a ball from one to the other; following a leader in teams; running and jumping over ropes, 'jumping the snake', etc. may be organized.

III. *Group games* (for recreation)

1) Singing games—group activity to be accompanied by rhythmic singing in a group.
2) Other games, e.g. 'circle chase', 'fishes in the net', 'the train', 'snake and the mongoose', 'French touch', 'couple tag', 'catch your partner's tail', 'hit the dodger', 'find the leader', 'fox and geese', 'soldiers and brigands', 'city gates', etc. may be played. Many more groups games, particularly of indigenous origin, may be added to the list.

The relationship between the body and mind should be recognized and reflected in the school curricula.

A well-thought-out and planned programme of health and physical education at the primary stage would lead to the coordinated development of the personality of the child and make him physically fit, mentally alert and emotionally sound. However, the school must secure the cooperation of the parents for the success of the programme. The role of parents if of vital importance, as it is at home that children learn healthful habits. □

Fun with Figures

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THROUGHOUT THE AGES, men have been interested in the mysteries of numbers. Numbers have a secret life of their own and are full of surprises and excitement. Any student of mathematics may discover a mine of hidden treasures in the world of numbers. Yet the wonder of this world is missed by most students following the school mathematics curriculum. Numbers are tools with which pupils can work. They are also toys with which pupils can play. Wonderful tricks can be performed and exciting games played with numbers. Number theory is that branch of mathematics where the problems are so simple that any ordinary pupil can understand them but the solutions so difficult that they puzzle even the most intelligent minds.

Number sense consists in the ability to recognize the various relations that exist between numbers. Number sense can be developed in children right from the beginning of their school career. Often the number sense is absent in many students who have an excellent understanding of advanced mathematics.

Job of a Mathematics Teacher

Mathematics teachers have a very great responsibility in this regard. Their first job is to collect an adequate fund of materials from various sources and present it to the pupils. There can be no

scheme or syllabus for this kind of work. It depends on the ability of the teacher to make use of opportunities. Extra classes may be taken for this purpose. Mathematics clubs can arrange such programmes. People are surprised at the notion of fun with figures. Such people lack keen observation and interpretation. An effective programme of arithmetic teaching should aim at helping the learners develop an appreciation and enjoyment of numbers and number relations. We know that children enjoy reading or listening to short stories. Can we develop in them a similar enjoyment of arithmetic, through certain recreational items? It is enjoyable for pupils to discover generalities about numbers and number relations through a process of inductive reasoning. The pupil who discovers something by himself experiences a thrill in his personal achievement. Enough attention should be paid to the numbers themselves and their characteristics. It is a very interesting diversion for children to look for relationships between numbers.

Young men and women who take up teaching as a profession are generally unaware of the existence of recreational arithmetic. Some may have a little knowledge of the field. In order to overcome this deficiency short-term courses can be arranged to acquaint teachers with this aspect of arithmetic.

In the advanced countries of the west, special periods for recreational arithmetic are allotted in the schools.

Illustrations

Any single digit repeated thrice forms a number with special qualities. The number is divisible without a remainder by the sum of the digits and the quotient is always 37.

Examples for Verification

Single digits	3	4	8
Repeated thrice	333	444	888
Sum of the digits	9	12	24
When divided by the sum	37	37	37

This can be played as an interesting game with the pupils. They will be surprised when the result is announced. The same can be expressed in the following way :

Multiplication Table of 37

37.3=111 37.12=444 37.21=777
37.6=222 37.15=555 37.24=888
37.9=333 37.18=666 37.27=999

When 37 is multiplied of 37 (up to 27), the product is a number of 3 digits repeated.

In a multiplication process, when the multiplicand and the multiplier are reversed, the product is also reversed.

312 × 221 = 68952
213 × 122 = 25986

Peculiar Multiplication

$$\begin{array}{r} 142857 \times 326451 \\ \hline 142857 \\ 714285 \\ 571428 \\ 857142 \\ 285714 \\ 428571 \\ \hline 46635810507 \end{array}$$

The mystery lies in the process, not in the product. Observe how under each digit, the same digit occurs.

Same Result

Any whole number, after several basic operations, yields the following results :

Starting number	3	8	14
Multiply by 6	18	48	84
Add 9	27	57	93
Divide by 3	9	19	31
Add 15	24	34	46
Divide by 2	12	17	23
Subtract the original number	9	9	9

These numerical examples would fascinate the pupils. They may take up arithmetic as a pastime, during their leisure hours. Plenty of such illustrations can be given.

Number Reverses

$9+9=18$
$9\times9=81$
$47+2=49$
$47\times2=94$

$24+3=27$
$24\times3=72$
$497+2=499$
$497\times2=994$

Number Symphonies

$1=+1$
$1+2+1=4$
$1+2+3+2+1=9$
$1+2+3+4+3+2+1=16$
$1+2+3+4+5+4+3+2+1=25$
$1+2+3+4+5+6+5+4+3+2+1=36$

The numbers thus obtained, i.e. 1, 4, 9, 16, 25 and 36 are all square numbers.

Magic Square

This square contains nine cells. A number is written (from 1 to 9) in each cell. Add the numbers, by rows or columns, or diagonally. The sum is always 15.

8	1	6
2	5	7
4	9	2

Conclusion

The illustrations cited above are not exhaustive. A great deal of literature on the subject can be made available for the children of elementary schools. The purpose is not to teach these as a regular subject but present such illustrations occasionally, just to provide motivation for the study of number theory. This incidental motivation develops the attitude of discovery in children. This ability may grow stronger with the years, which may result in their becoming good research workers. Children who are exposed to such treatment at school may turn out to be great mathematics and contribute to the advancement of knowledge in the subject. The same ability may also be used for research work in other branches of knowledge. Thus, the discovery attitude can be inculcated in children through recreational arithmetic. The same can be taken up as an experimental project in schools to find out how far this novel practice is effective. ☐

Introducing Children to Other Lands and Peoples*

ADAPTATION

YOUNG CHILDREN can be helped to understand that everywhere in the world human beings communicate. It is more important to focus on the fact of human communication through language than to emphasize that people differ in the way they speak. Even young children know that Hindi and Tamil and English sound different. What is less obvious is the fact that language universals exist. No matter which language is spoken, words are used for expression of feelings, and similar parts of speech—nouns, verbs, adjectives—are used in all languages. An activity in which children learn Hindi should convey the idea of language as a means of communication, rather than be an exercise in rote memorization.

In most countries, children live in family units and are engaged in the routine activities of daily living —sleeping, getting up in the morning, eating, going to school, playing, etc. The family unit may be single-parent, extended, tribal or communal. The food consumed certainly varies and sleeping arrangements may be diverse some may sleep on a woven mat, others a hammock, still others a box spring and mattress. Yet everywhere children eat, sleep and are involved in the routine activities of day-to-day life.

Most children everywhere participate in family activities (fairs, outdoor cooking or camping) and in community events (parades, sports). At picnics and cookouts, the types of food served may be different but the activity is basically the same. Parades may have different purposes and the music played may differ, but the excitement of such occasions is the same for children everywhere. Regional festivals such as Onam and Durga Puja are similar in terms of their pageantry and the merrymaking that is common on such occasions. In games, whether children are participants or spectators, a similar enthusiasm prevails The games that interest children are more or less the same everywhere. They enjoy playing with toys and dolls. They like acting the roles of adults in their play—mother-father games, soldier games, etc. All these are universal preferences.

Songs and stories are very much a part of the lives of children in all countries. Children learn these from their parents and friends, as well as at school. It is not unusual to hear children sing out commercials and songs they have memorized by listening to the radio and television. Some traditional children's stories, nursery rhymes, fables and folk tales are common to all countries with regional variations. Children everywhere celebrate holidays.

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* This article has been adapted from 'Multicultural Education · Where Do We Begin ?' by J. E. Moyer and G. Engelbrecht, which appeared in the March '77 issue of *Childhood Education.*

School life presents many similarities. Physical facilities and materials may vary greatly, but most children everywhere attend school during their childhood years. The basic subjects in all countries are the same—mathematics, history, languages and the like. In many schools in India and elsewhere, the day begins with physical exercises and a pledge to the flag and a patriotic song. Methodology and class size may vary, but each class has a teacher and schools function similarly in all countries. Although procedures and materials are often different, the activities in which children engage lead to similar goals such as literacy, acquisition of skills, and knowledge of the immediate environment and the world.

As part of the year-round activities in the school and community, children develop insights about their country, its history and traditions, its relationships with other countries, and the problems it faces. Children also develop pride and loyalty towards their country. In India, children participate in the Independence Day celebrations with great enthusiasm.

Understanding the essential oneness of different peoples is of importance to all children. Following the approach suggested here, introducing children to the contributions of people in other lands and emphasizing similarities inherent in the human condition will help in reinforcing identity for children as members of the human race.

The approach suggested here does not provide definite lesson plans. It does, however, present general guidelines that can be readily adapted to meet a variety of classroom situations. Practical classroom applications should involve the use of all available resources. Toys, records, pictures, printed material, should all be used for classroom study. Wherever possible, direct acquaintance with people of the particular ethnic group being studied is a most effective method. However, caution must be taken to avoid existing stereotypes or the creation of new ones. The key is to focus students' attention on similarities and then extend it to the uniqueness of individuals. □

How They are Doing it in Other Countries

Just a little more
Let us rise just a little higher.

Just a little more
And we shall see the almond
trees in blossom
The marbles shining in the sun
The sea, the curling waves.

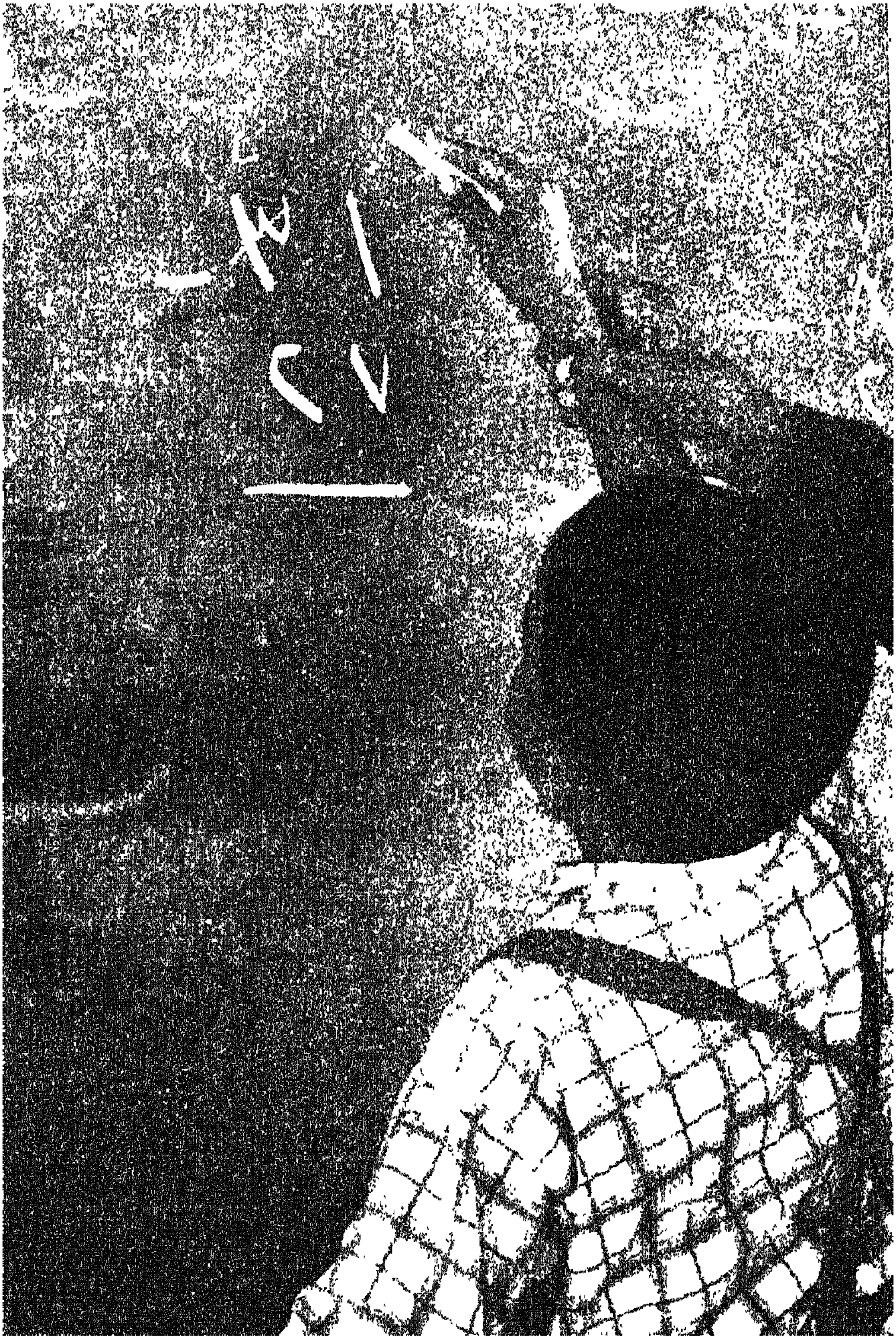
—George Seferis, *Mythistorema, xii*

* * *

We have had bitter experience of refugee camps in this country. But we are not the only unfortunate on the earth. Other peoples have had their quota of such bitterness in other countries.

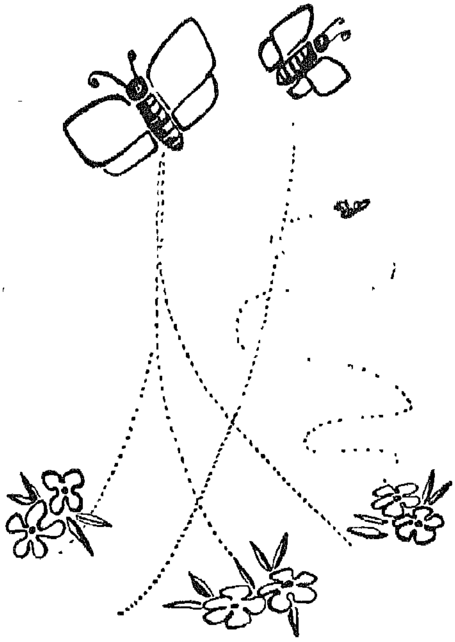
We have selected this particular picture for the lesson it gives us. Here is a Palestinian child in a refugee camp learning arithmetic. Look at the helping hand of an adult (obviously the primary etacher) on the right, putting the child on his track to the power and mysteries of the numbers. Look at the child—he is making a noble effort to rise above the squalor, uncertainty, rootlessness and ignorance of the refugee camp.

It is a lesson for us, the adults here. ☐



TEACHERS WRITE

Why Children Run Aw From Sch



CHILDREN who run away fr school often indulge in undesiral activities. They do not go ba home. Instead, they while aw their time in cinemas and marke But they are home at the appoint hour. Truants are not peculiar the cities, they are also to be fou in villages, wasting their time ne the railway tracks. At home th tell a variety of lies to prevent th parents from finding out abo their activities.

Truancy is the first stage mental, physical and mo degeneration. Such children l behind in their studies. They pi up bad habits, start telling lies a quite often, for meeting person requirements such as entertaini their friends, start stealing holding back their fees. In a sho time these children become a bu den to their families and ultimate to the society and the nation. It in the interest of such children restrain them at the start. In t initial stages, truancy is easy cure. The best cure is of the neg tive type. Therefore, the teach should see that there are no el ments in the school environme which put off a child, or cause hi to run away.

The environment of a scho should be attractive. No scho should be located down da alleys. Otherwise a school woul be reduced to a teaching shop; would be very uninteresting to th children, who would start ru ning away. Children do not want to be cooped up. They want to run around in the open. Therefore, playgrounds are a must.

Children by nature are different from each other. In their attitudes and likes and dislikes they would naturally be different. Some like studying English and others mathematics and a few may have an interest in science and others in geography. If the children are interested in certain subjects they try to explore the foundation of the subject and are very quick to grasp anything connected with it. But if they have no interest in a certain subject, they find it boring. This happens when children select a subject for which they have no aptitude. A child can take advanced courses only in the subjects he likes. It is necessary, therefore, that no subject be imposed on children.

Some teachers teach in a very dull and uninteresting manner. Children find the classes of these teachers boring. This often prompts a child to cut classes.

Home-work assignments are also a burden for a child. There may be no direct relationship between truancy and home-work. But indirectly, once some work has been left out, the child wants to stay away from the class for the fear of punishment. If this behaviour is repeated several times, a child positively becomes a truant. Some children may not have the ability to pull on with their seniors. They may be physically handicapped. All these reasons, individually or collectively, may be behind the making of a truant. A well-fed man never indulges in gluttony. Similarly, if the guardians give their children plenty of time for play, allow them to roam around, visit cinemas and have some pocket money, the children would not be interested in playing truant.

The guardians must also spare some time to play with their children. Children should be taken out on picnics and tours. The parents should keep themselves in touch with the class teacher and learn about their progress. They should know about their strong points and difficulties and, if possible, try to help the child to make progress in his studies. And if the parents are able to identify the reasons of truancy, they should try to remove the same.

Truancy is an important social problem. Truants often associate with criminals who spoil their future. The personality of children should be developed and the school should be made attractive so that children come to love it and do not run away from it.

CHUNNI LAL SALUJA
Madhwan New Block,
Shivpara, Madhya Pradesh □

Qualities of Exceptional Children and Suggested Programmes

INDIA has always been in need of exceptionally brilliant persons. Such people have performed important roles in our history. Plato had proposed that children of exceptional abilities be identified at an early age to be trained in science, philosophy and logic.

Qualities of Exceptional Children

On the basis of studies conducted in the field of psychology, Terman has concluded that brilliant children have certain outstanding features. These may be listed as follows :

Physical Qualities

i) At the time of birth they are 3/4 of the weight of the ordinary children.
ii) They take less time to learn.
iii) They are not intellectually disinterested to learn.

Intellectual Abilities

i) They are exceptionally good in school work.' They have interest in different subjects and want to progress at a fast rate.
ii) They want to learn new things.
iii) They want to have new experiences and read books of a high level. They are better in thinking and undertake their work with greater responsibility than ordinary children. They have a thirst for knowledge.
iv) While doing school work, they are not easily tired.
v) They are logical. They want to solve the questions given to them in their own way. They have intellectual curiosity
vi) They have a balanced personality and are well-behaved. This means that they have more common sense than the ordinary children. They are intellectually better. They can critically evaluate their own work.
vii) They need only very little suggestion from the teachers. They look for more opportunities to undertake new work. They are interested in routine activities.
viii) They are versatile. This means that these children are interested in more subjects than the ordinary children. They are happy to reach conclusions.

Social Qualities

Exceptionally brilliant children are very good in human relations. They have an ability to influence others and they take up their work with greater responsibility than is common in others. According to Terman, these children are social. They take their decisions independently. They are friendly, emotional, balanced and have high qualities of social discipline.

Moral Qualities

Terman has also concluded that these children are morally more balanced. They are honest, intelligent, humane and have integrity. Their normal standard of life is higher than that of the ordinary children. They are consious of their duty and also of their rights. They love music. They are not interested in crime and wherever possible they are interested in human welfare. They are ideal citizens They encourage others.

Identification of Exceptional Children

It is possible to identify these children by (1) Individual Intelligence Test (2) Group Intelligence Test (3) Achievement Test Batteries (4) Teacher's Search.

Identification by the Teacher

We all know that human beings are different and they should be encouraged to conduct themselves according to their full capacity.

Areas of Exceptional Abilities

(1) Social, (2) artistic, (3) emotional, (4) physical, (5) linguistic, and (6) educational.

Programmes for Intellectual Children

i) They need additional reading material.

ii) They should be given problems according to their attitudes and abilities.

iii) Wherever possible they should be given opportunities to learn Indian and foreign languages.

iv) They should be enabled to interest themselves in cocurricular activities, for example, special talks and seminars should be arranged for them.

v) These children should be encouraged to undertake additional activities independently.

vi) Summer institutes should be organized for them. Such centres should have library facilities, laboratories, etc. Such camps should be organized for a month or so.

vii) If some of these children do not have a good home background, they should be put in hostels

viii) These children should be taken around museums and historical places on conducted tours.

ix) New teaching techniques should be employed so that these children may take more interest in their studies.

x) They should be offered more opportunities to read in libraries and other places.

xi) Teachers should use related literature to teach them new subjects more effectively.

xii) These children should be given extra home-work.

xiii) They should be encouraged to participate in debates, seminars, etc.

Before we organize any of these programmes, we must ensure that intellectual development alone is not the principal occupation of the teacher. The personality of these children, their emotional and social development should also receive due attention. Only then will the all-round development of children be possible.

HARI SHANKER SHARMA
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Khirni □

Why Train the Primary Teacher ?

EDUCATION has been called an unfolding process. Education helps students to develop innate abilities. The development of the innate abilities of the child is dependent on the teacher. Education, after all, is no mechanical instrument. Nor is it a magic wand with which no sooner than you touch a student, he becomes developed. The teacher is the medium through which education reaches the child. The teacher comes into very close contact with the students and it is due to this natural relationship that the teacher leaves an imprint of his qualities on his students. A student is influenced by every aspect of the teacher's behaviour. Therefore, the teacher's influence can be of great significance to pave the way for a better life. If the teacher is to develop the innate abilities of a student, he must himself have a flame within. Unless his own mind is developed he cannot help a student to develop his. In the absence of the teachers' own mental development, the aims of education would remain incomplete, and the child would remain directionless, like a leaf in a storm.

Inner light and teaching competence can lead to proper training. The teacher should know child psychology and understand and appreciate the requirements of the children. Only when he knows these needs is it possible for him to help the children in his care. A properly trained teacher is also aware of the different kinds of influences on children and he also knows how to use them in education. Some children are insolent, a few very polite. If some children are extremely brilliant, there are others who are not so bright. There are children who are restless, and others who are lazy. In this kind of situation only a competent teacher can provide necessary guidance to all.

Some people hold that teachers are born with the ability to teach, and that training does not help a person to become a competent teacher. While this is true to some extent, it does not in any way reduce the importance of training. It is commonly accepted that human beings have a few innate abilities. These instincts with proper training and guidance, could be improved and sublimated. In a way it is necessary for a teacher to have certain inborn abilities. All the same it is necessary to train up a teacher because that is how one's innate abilities can be perfected and the limitations in one's behaviour overcome.

It is especially necessary for the primary teacher to be trained. After all, a beautiful structure would collapse if its foundations were not properly laid. In this case only the teacher can lay the foundations of the education of a child.

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Problems of Learning-Load

KNOWLEDGE stands on the foundation of truth and objectivity. None has succeeded so far in knowing all. Knowedge has been divided into several categories. The *Nitikars*, the logicians of ancient India, had declared that knowledge was unlimited but time limited. There are many types of obstructions as well. Therefore it is important that the essence of truth be grasped.

There is no question as to which branch of human knowledge should be taken up for study and which left out. The question is, which portion of knowledge is meant for whom. When we see small children loaded with a lot of books on different subjects, a sensitive person starts wondering whether this is not an unnecessary load. This is an issue which should be debated on and eventually settled.

While making a proposal that the work-load may be reduced, one has to suggest how much of it should be reduced. There are three major streams in our school: arts, commerce and science. A number of subjects are included under these broad groups. For instance history, geography, political science, literature and languages, etc. are arts subjects. Similarly mathematics, physics, chemistry, etc.are science subjects,Proceeding to higher education, we find that students specialize in certain subjects at the post-graduate stage. At the lower stages we have no such specialization and the children in schools have to learn all the subjects included under all broad heads.

We know that the food that is digested helps the body grow, while undigested food is harmful. The same is true of the mind. While knowledge that is digested awakens the mind, undigested knowledge stunts mental growth. Why can we not have the children study certain subjects on the basis of their aptitude in the lower classes just as we do in the higher classes ? It has been argued that if a child did not read history or geography he would not know the nation's past or the names of the different cities in our country. This is after all a matter of opinion. The present author argues that only the essence of truth under each subject area should be offered to children according to their aptitude. We can illustrate this argument. Let us take the case of students of science. Where is the need for a child studying science in Class III or IV to learn about the date of the battle of Plassey or to know about Siberia? Similarly the children who are learning literature need not know how to prove certain geometrical or arithmetical propositions. Normally we have been associating reading and writing with the learning of arithmetic. We could as well anociate with this the habit of cleanliness. As for the knowledge contained in the thick books children have to study, why can this knowledge not be offered in one small book of general knowledge ?

We can illustrate this by taking examples from geography, history, grammar, political science, general science, etc. In geography we read that the world is round and that different parts of the world have different climates. All this knowledge could be condensed to ten pages and put in a
of general knowledge. Simi
history for young children
be presented in six or seven
ters, stressing upon the main
tures of India's historical dev
ment. All other subjects cou
allotted a certain number of
in the book. If a child at some
stage wishes to specialize i
particular branch of knowl
covered in this book, he may
ceed without any difficulty
trained teacher can help the
learn without much effort.

We should remember one
here. A child learns much
and more easily, by listening
lecture than by going throug
books. We should therefore re
the learning-load on the
However, the importance o
teacher's role should neve
overlooked.

GAYA PRASAD S
Senior
Primary Teachers' Training
Saurath, Dist. Ma
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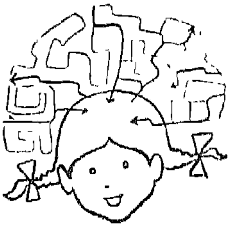
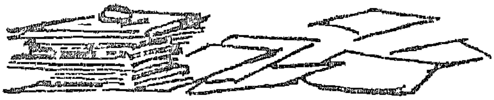


Field Officers Report



ALLAHABAD

Science Training Programme for Primary Teachers

THE State Institute of Science Education, Allahabad, has worked out a model to train intensively primary school teachers in the content of science by using the staff and laboratory resources of higher secondary schools. This is being tried out on a sample basis in Allahabad district. The first phase of the experiment has been launched. The total orientation programme is divided into four phases and is to be completed by March 1978. The phasing will match the progress of science teaching in primary schools.

In this plan, one higher secondary school which offers the science stream has been identified in each of the 27 blocks of the district. Two senior teachers from each of these 27 higher secondary schools have been oriented to the institutional content, techniques and tools relevant to primary science education. These two teachers were engaged to train intensively about 60 primary teachers—one from each primary school in the block—over a period of five to six days.

The second spell will follow after two months.

If this teaching-learning enthusiasm lasts and could be institutionalized, a major battle for the successful implementation of science education programmes in primary schools would have been won.

BHOPAL

Universal Science Education at Elementary Level

Madhya Pradesh has entered the universalization phase of the Science Education Programme. As a part of the programme, the State Institute of Science Education, Jabalpur, has arranged a ten-day orientation workshop for about 70 Assistant District Inspectors of Schools. This is in continuation of the previous orientation workshops held last year.

As regards the training programme for elementary school teachers, the State had completed the last phase during the Dussehra-Diwali break to train about 14,000 teachers drawn from distant and remote places. All preparations such as supply of kits, correspondence course lessons, instructions to resource persons, etc. at these centres have been made. A team of Directors from the State Institutes of Science Education, Udaipur and Allahabad, would be visiting some of these centres.

BHUBANESWAR

New Educational Districts Created

Sixteen new educational districts have been created in Orissa for better supervision and control of primary education. Now the total number of educational districts is 56.

Additional sections have been opened in different classes of the Government High Schools and the available seats have been increased in the various classes of the colleges of the State in order to provide educational opportunities to a larger number of students.

PATNA

Training on Buddhist Lines

In Buddha Gaya a school has been established to train students on Buddhist lines. It is attached to the Japani Temple in Buddha Gaya and has been established with the cooperation of the Buddha Kindergarten School in Japan.

On an experimental basis in the beginning, 40 four-year-old children are being admitted. The Vice-Principal, along with two lady teachers, are for the time being looking after the working of the school.

Supervision Committee for Primary Education

The Education Minister of Bihar has stated that by November 1977 a nine-member supervision-development committee will be formed in every village of the State to look after its 62,000 primary and middle schools. The nine-member committees will include the village headmaster, *mukhia*, *sarpanch* and others interested in education. The necessary steps have been taken to constitute these committees. The main work of the committees will be to look after the educational system of the schools and to construct school buildings with the cooperation of the villagers.

Plan for Primary School Buildings

The State Education Minister has said that a plan will be prepared for the construction of 20,000 primary school buildings in the State. For this Rs. 14 crores are proposed to be spent in the current financial year. He has appealed to the State Council workers to cooperate in the construction of school buildings and to open schools in the names of those who have helped in the construction of the buildings. The medium of instruction in all the primary schools of the State will be Hindi.

PUNE

Adoption of Schools by Officers of the Education Department

The Maharashtra Education Department has undertaken some remedial programmes to improve examination results. An important innovation in this direction is the scheme of 'adoption' of schools by officers of the Education Department. It has been the experience that most of the schools with low pass percentages suffer from a feeling of isolation, but possess the potential for good performance.

There are about 700 officers in the Department, and about 300 extension officers in education who are working at various levels all over the State. If each of these officers adopts one secondary school which has shown a persistently unsatisfactory performance, along with its six or seven feeding primary schools and visits them frequently—at least once or twice in a month—the effort would go a long way in improving the falling standards in such schools.

To give a lead in this direction the Director of Education, Maharashtra, has adopted a secondary school. All the other officers have been instructed to do the some. Detailed guidelines for selection of schools have been prepared by the Directorate of Education, Maharashtra. □

SCHOOL SCIENCE

A QUARTERLY JOURNAL OF SCIENCE EDUCATION

Published by the National Council of Educational Research and Training, *School Science* is a quarterly journal of science education.

School Science is an open forum for discussing science education in our schools, its problems, prospects and the individual experiences of teachers and students.

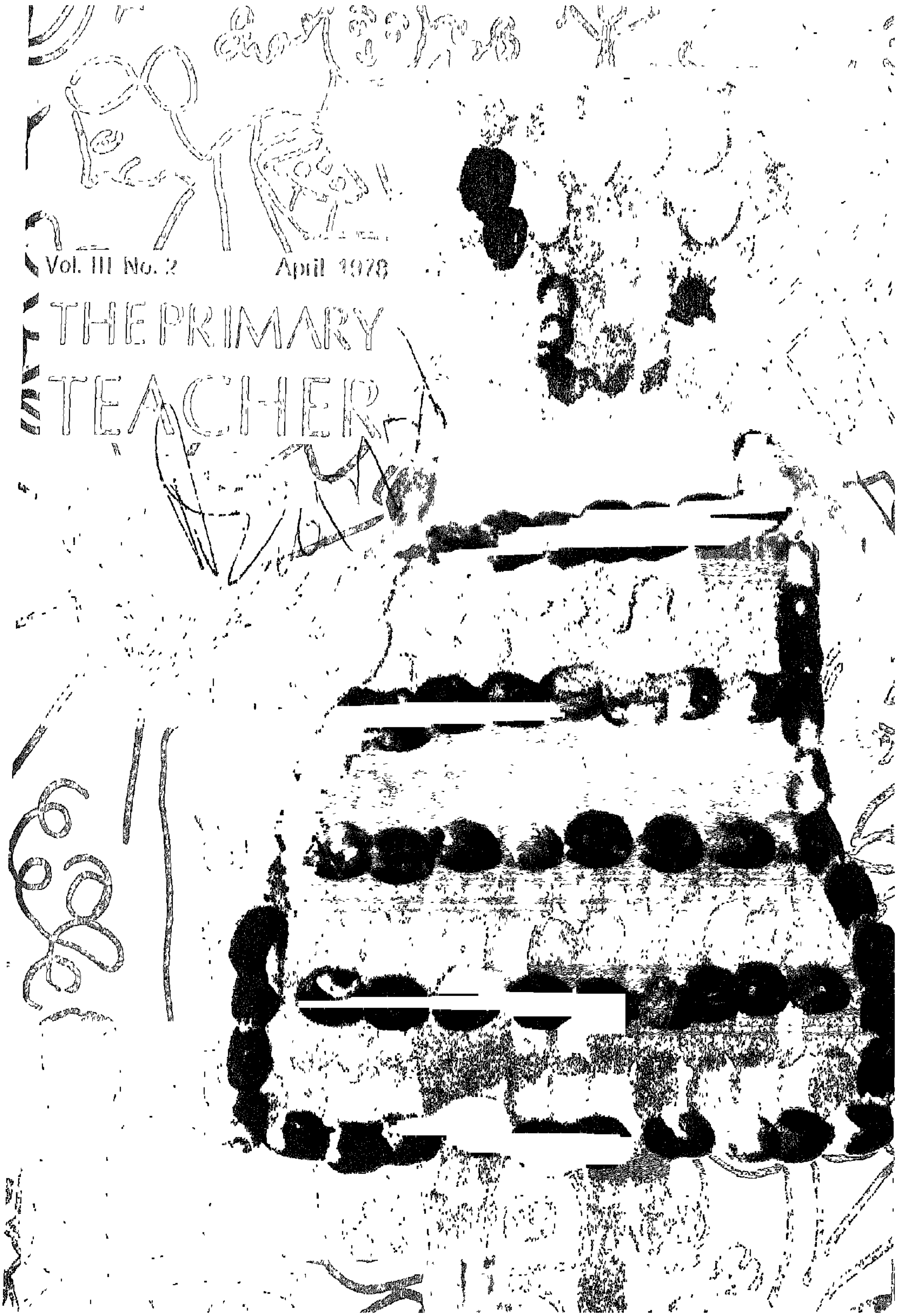
Besides the educational aspect, *School Science* contains a stimulating feature—Science News, which introduces the frontiers of science to the teachers and the curious students. Among other regular features, *School Science* presents profiles of famous scientists. Julian Huxley, T.R. Sheshadri, Amedeo Avogadro, Jacques Monod, Lev Landeau and Werner Heisenberg have so far been covered.

We invite the practising teachers and their students to present their problems and findings in the pages of *School Science*. There is a section reserved for the students, where they can communicate with teachers and students in other parts of the country.

School Science, you will notice, is meant both for the teachers and their students. It is meant to make learning and thinking a joyous process. And the most important thing is your participation in it.

Vol. III No. 2 April 1978

THE PRIMARY TEACHER



The Primary Teacher is a quarterly brought out by the National Council of Educational Research and Training, New Delhi.

The journal intends to give to the practising teachers and concerned administrators authentic information about the educational policies being decided on and pursued at the Central level It aims at giving meaningful and relevant material for direct use in the classroom It would carry announcements of programmes, courses of study, etc, offered at various centres in India from time to time It would also provide a forum for the discussion of contemporary issues in the field of education

The major features of *The Primary Teacher* are

1. Letter from the Director, NCERT
2. The educational policies concerning primary education
3. Questions and answers,
4. States round-up
5. Illustrated material for the classroom use

Subscription A copy of the journal costs Re. 1 00 Annual subscription is Rs 4.00

Contributions Articles and papers written by school teachers either in English or in Hindi are welcome. Each published article would be paid for Two typed copies of the article should be sent in for consideration

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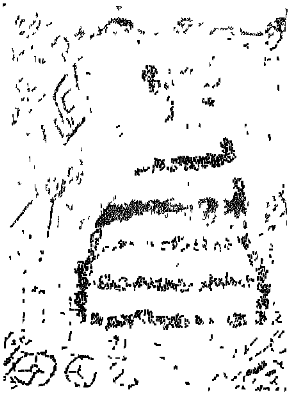


Swadesh Sharma's art works (see p. 22) have been used in the front & back cover-designs

ANNOUNCEMENT

To encourage educational innovations in schools, the Department of School Education, NCERT, has organized two competitions—one for elementary teachers, and the other for secondary and higher secondary teachers.

The teachers are invited to send in reports on innovations which they have successfully tried out in schools and which are replicable in different school settings.

The reports, written either in English or in any of the recognized Indian languages, must reach the Department by 30 May 1978. The reports should not exceed 3,000 words.

Cash prizes of Rs. 500 each will be awarded for the 30 best reports contributed by elementary teachers and the 20 best reports by secondary and higher secondary teachers.

For detailed information the teachers may contact the Field Advisers, Regional Colleges of Education, State Institutes of Education, or the Directorates of Public Instruction. □

Editorial

WAKING UP TO THE ENVIRONMENT

IT HAS BEEN in the news that a committee to review the 10+2+3 pattern was set up by the Union Ministry of Education and Social Welfare. The report of the committee has since come out. With regard to primary education, the recommendations made by the committee will be significant for the primary teachers.

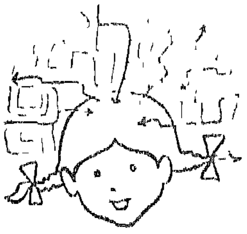
The committee has defined the objectives of primary education and has critically reviewed its structure, curriculum-pattern and time allocation. It is time our primary teachers considered the recommendations and did some useful rethinking. In this context, we should take note of "environmental studies" and "socially useful productive work" as conceived by the committee. These are not very different from the corresponding subjects in the existing curricula.

As regards the objectives of primary education, the committee has made a significant point : the main objective is to instil a desire among children for participating in the productive and other welfare activities of the community. So that the children look at the business of school-going as a kind of preparation for social service. The committee has outlined three phases in which this orientation process can be undertaken. The first two are preparatory and the third is the actual practice.

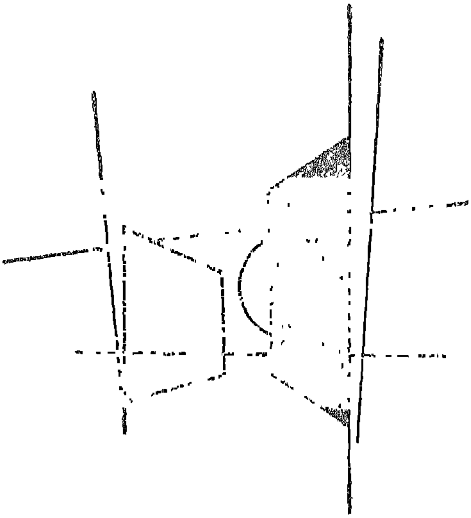
(*i*) Study of the world of work through observation and enquiry.
(*ii*) Experimentation with materials, tools and techniques.
(*iii*) Work-experience.

Significantly, the committee has also debated the objectives and efficacy of 'home work' usually given to primary school children. And the members of the committee have taken a very critical view of the practice, and recommended that no home work should be given. They have also made a distinction between "socially useful productive work" and the 'work-experience' of the earlier phase. This issue of *The Primary Teacher* carries an article on a method of teaching history, which is illustrative of this distinction.

We have in this issue several articles which would especially interest you. Except for one write-up on socially useful productive work, all others are on the problems of classroom teaching. Teaching of history can be made interesting by dramatization of certain historical events. This is a practice that has already been tried out and is in regular use by hundreds of teachers. We have given one illustration of this teaching method. We also carry a special article on art teaching for young students, contributed by a practising teacher. We hope you like the article and use its hints in your class. □



Pre-Primary Teacher Education: its Past and Prospects



B.N. Biswal
Centre of Advanced Study in Education, M.S University, Baroda

A S Sharma
Faculty of Social Work, M.S University, Baroda

Teacher - training programmes did not exist in the old days. There was no formal training course, nor was any degree awarded. But the teacher's ability to explain, expound and interpret knowledge in the light of his experience was constantly tested. The teacher was expected not only to impart information and skills, but also lead and guide the students.

One of the ways of recruiting teachers was through the famous monitorial system. In the Jataka period, the preceptors asked senior pupils to take charge of the younger students. If they proved competent, they were permitted to stay on for a longer period to gain deeper knowledge. Thus, in ancient times, the teachers were chosen by the students on the basis of the reputation they enjoyed. Their reputation was based on the knowledge they gained and their power to communicate it. Knowledge was not then interpreted in the narrow modern sense of mere academic information.

Because of adherence to the rigid caste system, teaching became a hereditary vocation, confined to the Brahmins only. This monopoly, as could be expected, led to a deterioration in quality. The teachers who now taught only because teaching was their caste occupation, could not maintain high professional standards. Thus, memorization began to take the place of exposition and interpretation. The original practice of meditating upon a subject was given up, as the volume of information increased rapidly. Varied information had to be committed to memory. Thus, as the centuries went by, education became mechanical rather than creative.

How Teacher-Education Began

The East India Company took a fairly long time to embark on the task of educating the people they had begun to govern.

It was left to the European missionaries to introduce education on Western lines in India and a number of missionary colleges came up all at once. Teacher-education, as we know it today, is a direct lineal descendent of the training given by the missionaries in the late 18th century. The second half of the 19th century saw significant changes in the educational pattern of the country. The famous Wood's Despatch and the Hunter Commission's Report, issued in this period, are considered landmarks in the history of education. These studies provided the foundation for Indian educational development.

Thus, teacher-education in India, one may say, began more than a hundred years ago. But pre - school teacher - education, with a systematic approach to the problems of child education, started towards the end of the 19th century.

Pre-school Teacher-education : A Backward Glance

As early as 1888, kindergarten classes were added to the Saidpet High School, Madras. The trainees of the Saidpet Teachers' College had to do part of their practice teaching in this school. Later on, a number of secondary and elementary teacher-education institutions started kindergarten courses. Simultaneously, the Christian missions also did pioneering work in this field. The first full-fledged training institute was set up in 1937 at Vepery in Madras by a Christian missionary. It still functions today and conducts an effective programme. Prior to 1947, very little attention was paid to pre-school education or pre-school teacher-training. In spite of the strong recommendations of the Sargent Report, nothing was achieved. But since 1947, there has been a slow change for the better. Even today the states have not taken direct responsibility for pre-school education but many have started pre-school teacher-training colleges. Nevertheless, pre-school education still owes its progress to the efforts of private agencies.

In addition to the pre-school training institutes run by the State Governments or recognized by them, there is the Indian Council for Child Welfare's Balsevika Training Programme, started in 1961 in Delhi. It is an integrated eleven-month course for pre-school teachers. Later, in 1963, the Central Social Welfare Board started its training programme for pre-school teachers from the villages.

Given in Table 1 is a list of the different pre-primary training

TABLE 1

PRE-SCHOOL TEACHER-TRAINING PROGRAMMES

No	*Type of Programme*	*Run or Recognized by*	*Duration*
1	Teacher Educators' Training in Early Childhood Education	National Council of Educational Research and Training	9 months
2	Graduate-level Training in Early Childhood Education	Department of Child Development, M S University of Baroda	One academic year
3	Teacher-training in Pre-primary Education	State Departments of Education	One or two years
4	Balsevika Training for Urban Areas	Indian Council for Child Welfare	11 months
5.	Balsevika Training for Rural Areas	Central Social Welfare Board	Two years
6	Montessori Training	Association Montessori International	Unspecified
7.	Other short-term courses	Private agencies	,,

programmes conducted in the country.

Teacher-training in Pre-primary Education

Many of our states have recognized pre-primary teacher-training institutes. In some states, the government itself runs the colleges, while in some others like Maharashtra, the courses are conducted mostly by private institutions which receive grants-in-aid from the government. The courses are of one year's duration in States like Madras, W. Bengal, U.P. and Maharashtra. The requirement for admission is generally a high school certificate. Gujarat and Maharashtra also run courses for those who hold primary school certificates, the duration of which is two years. The number of pre-primary teacher-training institutes varies from state to state in our country. The statewise distribution is as follows* :

Assam 1 ; Andhra Pradesh 2 ; Chandigarh 1 ; Delhi 4 ; Gujarat 11 ; Haryana 10 ; Kerala 2 ; Maharashtra 34 ; Madhya Pradesh 5 ; Mysore 14 ; Orissa 1 ; Rajasthan 2 ; Tamil Nadu 5 ; U.P. 5 and West Bengal 3.

Objectives of Pre-primary Teacher-Education

a) To help the teacher develop an understanding of the child's nature.

b) To develop in the teacher an understanding of the principles, processes and techniques of learning and teaching.

c) To develop in the teacher an understanding of the process of growth and

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**News Bulletin*, Vol. XXI, No. 3, Indian Council for Child Welfare development in children and adolescents.

d) To train the teacher in measuring pupil growth, his ability and achievements in instructional objectives.

e) To help the teacher to contrive and use a number of teaching devices—instruments, materials and audio-visual aids.

Importance

The idea that teachers are born and not made, is no longer considered to be true. Teaching is a highly skilled job, which cannot be done satisfactorily without a sound preparation for it. The progress of a nation depends upon the quality of its educational system and the quality of its teachers, which is in turn determined by the quality of teacher-education. Teachers can build the nation. Teacher-education is very essential for achieving the desired goals of education. No educational programme can be a success without proper education of the teachers. Thus, teachers must be provided with the best possible professional training. In the context of Indian education such training can yield very rich dividends because the financial resources required are small measured against the resulting improvement in the education of millions.

Trained teachers teach at the college, school and pre-school levels. At each level they play an important role for the development of students. Their role is crucial at the pre-school level. Students can develop much better when their childhood energies and enthusiasms are given direction. This can be done at the pre-school level by well-trained teachers as they act as socializing agents and guide the development of the child. They also prevent poor adjustment to the environment so that their pupils' adult lives become meaningful. The role of a teacher at pre-school level is of vital importance.

The nursery school teacher should be mature, warm, understanding and sympathetic and vitally interested in utilizing all available resources in the task of guiding the growth of young children. In the school she is a friend, philosopher, guide, mother and nurse to the children. The responsibility is hers for creating a cooperative climate conducive to happiness, and a productive learning environment for children and teachers. The pre-school teacher has to deal with children of tender age. She has to look after the harmonious development of the child, his physical well-being, and his social development. A sincere pre-primary teacher can be made out by her warmth towards children, which induces a feeling of security and acceptance. The teacher who can motivate students, helps them in planning ahead, encourages creativeness and cooperative effort.

Pre-school Teacher Training Institutions in India

There are many institutions in

India imparting training specialization in the following areas : 'Infant education', 'Nursery education', 'Pre-primary education', 'Early childhood education' and 'Pre-school subjects and methods of organization in nursery schools'. Only two institutions provide post-graduate training. They are M. S. University of Baroda and Nirmala Niketan College of Home Science, Bombay.

The M.S University Pre-school Programme

The Department of Child Development, M. S. University, was one of the first university departments in India to recognize the growing importance and need for training teachers, administrators and supervisors for pre-school education. As a result, a course was started in which each student had to work for a few weeks in one of the local pre-school institutions. The general objective of the post-graduate diploma course is to provide professional training in pre-school education. The specific objectives are as follows :

a) To provide deeper insight and understanding of the growth, development and behaviour of pre-school children.
b) To develop skills in the use of creative media for pre-school institutions and to develop self-expression.
c) To develop self-confidence and promote critical evaluation of one's own role in working with pre-school children.
d) To develop the ability to plan and execute programmes for pre-school children.
e) To promote competence to adapt curricula and methods of pre-school education to the institution's resources.

Pre-school children are at a critical stage of development. And the teacher has to play the role of a creative artist in dealing with them.

Twenty students are admitted to the course ; graduates from recognised universities are considered eligible.

Recent Trends

Today in our country pre-school education is given considerable importance Harmonious development of children can be ensured only when teachers are trained in pre-school education. Various seminars are conducted and recommendations are made to State Boards of Education. At a seminar held last year in the Nirmala Niketan College of Home Science, the delegates suggested to the State Board of Education the following improvements :

a) The programme of early childhood education, they said, should be given top priority as the period of

0-9 years is of vital importance. Generous grants-in-aid should be made available by the State Government and local authorities for improving the standards of early childhood education.

b) Innovative approaches to the integration of pre-primary and primary education should be encouraged. Such integration would make for continuity of the educational process and the transition from pre-primary to primary education would be facilitated.

c) Until the integration of pre-primary and primary education was achieved, the age of admission to the first standard should be six years.

d) In the context of the revised 10 + 2 + 3 scheme of education, provision should be made for a two-year vocational programme at the end of ten years of schooling. Para-professionals could thus be trained to work with children. This training should be given through polytechnics and other recognized educational and vocational institutions.

e) A state board of pre-primary education should be formed—an advisory body on the lines of the State Board of Primary and Secondary Education.

f) The State Institutes of Education should promote studies in the field of early childhood education; their direct involvement with the training programmes would result in greater uniformity of standards and general improvement of the programmes.

The delegates strongly reiterated the need to form an effective body through which the state and central education departments could be persuaded to revise their outlook on pre-primary and primary education. This would influence the approaches and methods used by school administrators and bring about continuity in early childhood education. It was proposed that a resolution be passed to this effect at the concluding session of the seminar. The delegates felt strongly about the age of admission to Class I.

There is an appalling paucity of schools for young children and of trained personnel to handle them. Forty-two per cent of the Indian population belongs to the age-group of 0-6 years and yet only three per cent receive any sort of nursery education. Various committee reports over the past decade have stressed the need for trained personnel. Yet, despite all these reports and recommendations, little progress has been made. An integrated course covering not just pre-primary and primary education but rather the education of early childhood, would put into proper prospective, for new entrants in the field, the role of schools for young children, and the role of the teacher as an agent of social change. □

The Learner and His Rights in the Classroom

The following excerpts are from 'Violations of Children's Rights in the Classroom' by Esther L. Plank, published in the American journal Childhood Education.

We find this relevant, because the writer discusses a vital problem—the development of a child's personality in the classroom. This, again, is related to the pre-primary teacher-education

Teacher educators have long spoken about individualizing or personalizing teaching so that children might be allowed to choose among various learning tasks those most significant to them. What does a walk down the corridors of your school reveal ? How many teachers are spending most of their time before the entire class, attempting to communicate with all but actually relating to a limited few while others are at various degrees of attending ? What is being done for those children who seem to be always on the periphery ? How many teachers appear compelled to follow the manual, "complete" the arithmetic and social science texts, have children go through the paces of reading more basals than the children next door, get their classes *ready* for the next grade, drilling them to respond correctly on regularly administered tests ?

Concurrently, how much learning-time is being wasted for children who require challenging, mind-stretching activities but are forced to sit within the confines of four classroom walls, attending to busy-work tasks ? An example is fourth-grader Eric, who is truly astute and advanced in elementary science. Eric's teacher has adamantly refused to allow him to pursue individually and quietly special tasks proposed by a visiting science-consultant—on the grounds that he is "not too good to work with others" and is "no better than anybody else." ...How many view themselves as failures, and find them so considered by classmates, because they seem not able to complete tasks at the same speed as others ? How many ...give up, turn off, reject, search for ways of behaving in which they can succeed, however inappropriate, or even throw tantrums ? □

The Pattern of Education We Need

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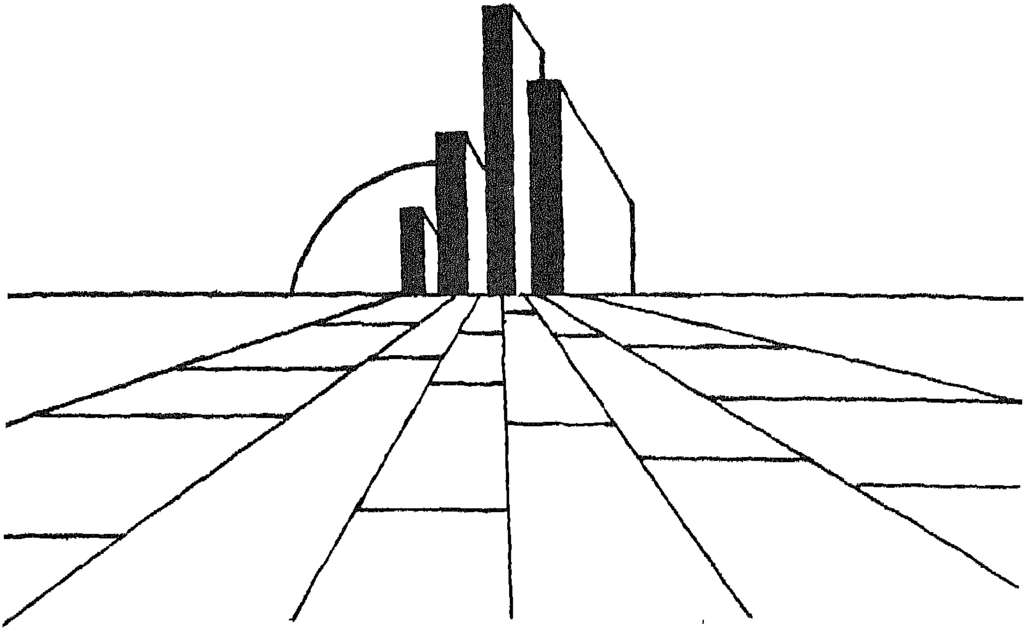


IT IS said that change is an indication of progress. Social change depends mainly on the educational policy adopted by the country. Our government revised its educational policy a number of times after independence. How far have these changes affected the society ? Have they answered all the changing needs of society? Let us see what we have achieved by effecting these changes.

At first the Government decided to introduce Basic Education propounded by Gandhi. So it was introduced in a few schools on experimental basis. This was a hasty step because it was introduced before its true spirit was understood either by the Government or by the society. So its introduction was really a farce. Next came the multipurpose schools and the bifurcated courses. A few schools were selected and agriculture, carpentry, engineering, typewriting, etc. were introduced in them. All this was done with the aim of giving an opportunity to the student to select a craft or trade of his liking by the practice of which he could make his own living after he left the school. The aim was worthy and novel but proper steps to achieve the end were not taken So it did not give good results. Therefore the scheme was withdrawn by the Government Why did such a good scheme fail? One reason was that the schools where this scheme was introduced were not properly equipped. Shortage of well-trained teachers was also a factor. When the students, teachers and the society had just begun to realize the importance of the multipurpose scheme, it was withdrawn. Another hasty step. Thus all these changes, instead of taking us forward, made us go back.

What do we need most? A change in both society and the educational system What kind of society do we want? A society in which every one has equal rights and opportunities, a society in which every individual is able to support himself. If we want this kind of society, a drastic change must take place in the existing system of education. We have to adopt a new system which makes every student industrious and which enables him to have a proper understanding of things around him. Only then will our dreams for a new society be fulfilled.

How to achieve this change ? When a student has the habit of working hard from his childhood, when he works not for himself alone but also for his society and when he is conscious of his rights as well as his duties, he will become a good and useful citizen. The young student grows up into a man and a society made up of such men and women is our goal. This is possible only if we focus all our efforts on our educational institutions. We must start with our young citizens at schools. The concepts of universal brotherhood, love for the country, love for work and dignity of labour must be strongly impressed upon their minds. A child's brain is highly impressionable and whatever impressions we leave on it are there to stay. It is difficult to erase childhood impressions at a later stage. So, the education system we have to adopt for a new society must mould the student in that fashion. Our present system of education, as we have seen, can do no such thing. In fact, it has done more harm to the nation than good. It is producing men who can talk glibly for hours together and do nothing but that. As a result, there has been a steady degeneration in all walks of life. Consumption is greater than production and prices are soaring high. We urgently need a new system of education that teaches our students work that is socially productive, trades they can take up after they step out of school. The education imparted to them must make them industrious and make of them good citizens.

To achieve this end, I suggest the following secondary education programme. Crafts should be introduced in schools. Most of the high schools in our State are in villages and most of our villagers are farmers. Apart from agriculture, the crafts of pottery, weaving, carpentry, etc. are also

> Any system of education is an expression of a society's hopes and ambitions. And we cannot change either our society or our education without changing both at the same time.

practised in our villages. Crafts should be introduced in village high schools in such a way that the expenditure incurred is moderate and the craft introduced does not stand in the way of general education.

How should we introduce agriculture in our schools ? Each state is divided into districts and each district into panchayat samitis. There are at least two or three Agriculture Extension Officers (AEO's) in each Samiti. There is a Village Development Officer (VDO) who works at the village level. What is the work done by these AFO's and VDO's? They are doing the work of a clerk. Most of their time is spent in allotting fertilizers to farmers after taking their land holdings into consideration. An AEO with a B.Sc. degree in agriculture is doing work which requires no technical expertise. Therefore, the Government can seek the help of VDO's and AEO's for the introduction of agriculture at village high schools. An AEO should be attached to schools and the VDO's of the neighbouring villages should be attached to the village high school.

First of all, a syllabus in agriculture should be prepared for high schools, to be covered in five years as there are five classes in a high school. Each year, the students should have some 40 to 50 theory classes and another 40 to 50 practical classes. The syllabus should be such that when it is covered, the students should know about (1) the pests that attack crops, and the pesticides for their control; (2) soil testing, and (3) the use of pump sets, sprayers, dusters, motors and their minor repairs. The introduction of soil testing will be helpful to the students and the village community. It will be helpful to the villager in selecting the right varieties of fertilizers needed by his soil. Use of the proper fertilizers increases production. Injudicious selection and use of fertilizers can be harmful. It is the duty of the AEO's and VDO's to see that all these goals of the syllabus are realized. The students should have periodic tests in these subjects and marks secured by them in these tests should be taken into consideration, while promoting them to the next class. If the AEO's and VDO's take classes in the schools, the Government need not spend any extra money on teachers.

There may be students who are interested in a craft other than agriculture. Suppose there are some students interested in pottery. How to train them in the craft? We must remember that we are dealing with village high schools and that there are no villages without people earning their living by pottery, weaving, basket-making, etc. So, we can always get the help of people who are experts in their crafts. They can be appointed on part-time basis. If considered necessary, they may be given some initial training in dealing with students. So, crafts like weaving, carpentry, pottery, and basket-weaving can also be introduced in village high schools without great expense. Girls may be taught sewing, embroidary, etc. The panchayat samitis have some instructors to do this and their services can conveniently be utilized.

Now, let us consider the schools in towns. School students in towns may receive a different kind of training. They may be trained to become turners, fitters, welders, etc. There are few towns without industries, big or small. So, high schools students should be imparted industrial training. In a town school, the number of students is large and it is difficult to take all the students to the factories for the necessary training. So workshops should be established in the school iteslf. Trained instructors should be appointed. In towns, therefore, we have to spend some money on the introduction of crafts. When a boy completes his studies at a town high school, he should be qualified to work as a fitter or a welder or a carpenter. He should be in a position to take up a trade. However, general education should not be neglected.

Every student should do manual labour for 40 to 50 days every year. If a student fails to do this on other than medical grounds, he should not be promoted to the next class. A student who cannot complete these 40 to 50 days of manual work along with the other students should be given a second chance to complete it. Only then should he be promoted to the next class. If this is implemented, students will become industrious. They will learn to work hard and love it. They will develop an interest both in work and study As all students—the rich and the poor—work together, cooperation develops among them. They come to learn that all men are equal.

There is also one more advantage. Generally, there is no high school with a strength less than 200. A student who works during the agricultural seasons (transplanting, weeding and harvesting) gets Rs. 3 a day. According to this scheme, each student has to do manual labour for at least 40 days. So, each student earns Rs 120 for his work. As the average strength of a village high school is around 200, each institution gets Rs 24,000 per annum. But would it be possible for all the students to get work? Who would hire them when trained help is available? Only those who are not aware of village conditions would entertain such doubts. In almost all villages, during the seasons, there is labour trouble. In our area, during the sowing, weeding and harvesting seasons, there is acute shortage of labour. Farmers have to go around the neighbouring villages to get workers. They have to increase the daily wages to attract workers to get their work done soon, as delay in harvesting may put them to a heavy loss. Even children of seven or eight years are engaged on farms during these seasons. So we can be sure that high school students will get work on farms during the seasons. The farmer who pays to get his work done makes sure he gets his money's worth. The students have to work under his constant vigilance.

What to do with the money earned by the students? The amount should be kept with the headmaster of the institution. A committee consisting of students, parents and teachers should be formed and the headmaster should spend the money only with the consent of the committee. The money should be spent for the development of the school laboratory, the library and for the construction of buildings. Thus, our schools will become self-sufficient and the burden on the Government for running the schools will be considerably lessened.

If this pattern is followed, the students would come to feel that they have done their best for the development of their schools. Schools would produce students with a love for hard work, who can make a living without waiting for government jobs.

If our schools are to function on these lines, they must not be left to be managed by panchayat samitis or private managements. There should be an autonomous board with an IAS officer as chairman and representatives from the teachers' and the parents' committees as members. All the schools should come under this autonomous board. It may be called 'Secondary Education Board'.

If all the steps I have suggested are followed, production will increase and the employment prospects improve. Schools will become self-sufficient. Here let me give an illustration. Let us consider Pant Agricultural University. It is said that the teachers there are highly paid. They have to show good results in the work entrusted to them When a new pesticide, for example, is discovered, the formula is sold to the manufacturers. Thus, the researcher makes money. If a teacher is unable to show any progress in his research or the work allotted to him, he is ignored for promotions. When a teacher shows good work, he is given increments. The university is self-supporting and has accumulated crores of rupees.

The Kothari Commission has suggested as many as 43 different crafts and handicrafts. Will our Government give us the opportunity of introducing these crafts in our schools? Let us hope that every student who leaves our schools will be able to make his own living and not depend on others. ☐

Dramatization in the Teaching of History

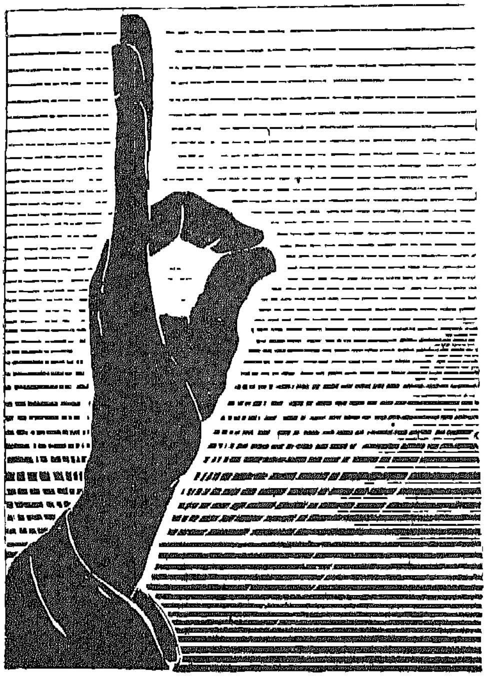
S. S. PATKE

AS IN THE CASE of the teaching of any other subject of the curriculum, the main concern of the teacher of history is how to make his subject interesting. As compared with science and even geography, the study of history is largely intangible in nature, calling for the exercise of powers of imagination and reasoning of no mean order on the part of the pupil and a generally good presentation of facts on the part of the teacher. Dramatization of events is an effective mode of presentation even when illustrative material is lacking. This is especially so in the case of the lower classes, because of the young child's natural desire for opportunities for self-expression such as those which a dramatic method of presentation provides. With young children, dramatization becomes a 'play way' method of learning, by eliminating drudgery in its substitution of *doing* for laborious learning. Its educational value is seen in the spontaneous activity it releases, not only in the often clever interpretation of the parts assigned to individual pupils, but also in improved powers of expression (illustrating the truth of the statement : 'No expression without impression'). Thus both psychologically and educationally, dramatization is a sound educational principle.

How to Proceed

The episodes or incidents to be dramatized will be chosen by the teacher in accordance with a prearranged plan, and the dialogue will be written by him, since he is the best judge of his pupils' limitations. The cast will also be chosen by him, and written on the blackboard. These preliminaries settled, he will instruct the young actors in their parts, and suggest how they might interpret them. This implies that the teacher should be somewhat of an actor, though common sense goes a long way, and it is surprising how soon one is bitten with a craze for writing dialogues and instructing one's pupils in the way to act their parts, and how ready is their response and how remarkable at times their appreciation of tone and gesture in speaking their parts. If dramatization is to be effective as a teaching device, it should form a regular feature of teaching, and every lesson should be preceded by a short playlet

The teaching of history is not a series of dry statements of events. The teacher should bring out the dramatic relationship between the individual and historical forces.



that takes not more than fifteen minutes to act and that can be acted out in the classroom without a stage or stage props. By writing the playlets himself, the teacher can make them of any length he chooses, and can in other ways as well adapt them to the needs of his class. It is enough if the actors read their parts, though they should, of course, do it effectively. In the choice of topics for dramatization the guiding principle should be whether dramatization is needed to help the imagination. Otherwise there is danger of the method being made a fashion of and being brought into contempt. Roughly speaking, the allotment of time will be as follows in a forty-minute lesson : ten minutes for an introductory talk, fifteen minutes for the playlet and ten minutes for recapitulation and question.

By way of illustration, two specimen dialogues are given below.

ASHOKA EMBRACES BUDDHISM

Ashoka was extremely grieved to see the great loss of human life after his victory over Kalinga. He completely lost his peace of mind. He went in search of a teacher who would restore it. Luckily he met the great Buddhist preacher, Upagupta. The following conversation took place between Ashoka and Upagupta.

(Ashoka arrives at the hermitage of Upagupta and touches his feet, showing respect for the great preacher.)

UPAGUPTA : Victorious king, accept my blessings. Why are you so unhappy after having won the war with Kalinga ? As a matter of fact you should have rejoiced over your glorious victory. But you look so very miserable. I wonder why you have come to a preacher like me.

ASHOKA : Revered sir, it is quite natural that you should be surprised to see me so grief-stricken.

UPAGUPTA : Can you tell me the cause of your grief ? But I must tell you that if you are expecting me to congratulate you on your glorious victory, you will be keenly disappointed. I will, on the other hand, condemn you for having killed thousands of innocent people. Your heart may be full of joy, but my heart is full of sadness.

ASHOKA : Believe me, sir, I am also deeply pained for having killed nearly one lakh men on the battlefield. I am responsible for the indescribable hardships that the families of the dead soldiers of Kalinga will suffer. The cries of grief of their wives, mothers and children have caused me great grief. I am passing sleepless nights. I feel sinful and guilty. What can I do to atone for my sins ? How can I have peace of mind ? O great preacher, show me light in the darkness of my life.

UPAGUPTA : O King, I am glad to hear you repent. One can atone for one's sins by sincere repentance. But there is only one way of obtaining true peace of mind.

ASHOKA : Sir, kindly show me the path of mental peace.

UPAGUPTA : That path is the path shown by Gautama Buddha to the whole of mankind. Embrace the true religion preached by Lord Buddha. The basic principles of Buddhism are very simple to understand and very easy to practise. The man who will observe purity of mind and action will attain *Nirvana.* He will be freed from rebirth. Lord Buddha has explained his idea of 'right conduct' in very simple terms. Never practise any kind of violence. Do not indulge in theft, falsehood, abusive language and deception. Give up anger and learn to trust people. Be kind and merciful to everybody. Treat all as equals

Do not make any discrimination of high and low birth. Everybody is born equal. One need not follow the path of sacrifice for attaining *Nirvana* It can be attained by the path of non-violence, kindness, purity of thought and action.

ASHOKA : O great preacher, I am satisfied by your advice. I swear that I will follow the path of virtue shown by Bhagwan Buddha from this very moment. I will devote myself wholeheartedly to the spread of Buddhism not only among my subjects but also among people in the neighbouring countries.

Upagupta : May Bhagwan Buddha bless you. I pray that he may crown with success your efforts for the spread of Buddhism.

BABAR'S PRAYER

Humayun is seriously ill, almost on his death-bed. Babar prays to Allah to save the life of his son by offering his own life instead. The following dialogue is based on this incident.

Babar : Hakimsahib, Humayun is sinking fast. Do you not have a more effective treatment ?

Hakim : Huzur, we have tried all possible treatments. We are at our wit's end.

Maulavi : Huzur, pardon me for my interruption. When all human efforts fail, one should pray to Allah.

Babar : How can I secure Allah's blessing ? Please tell me.

Maulavi : In my humble opinion, you should offer to Allah the most precious thing with you.

Babar : Which precious thing do you suggest ?

Only when we are aware of the human reactions of remote historical personages, we can have the 'feel of history.'

Maulavi : Huzur, the report goes that you have obtained a diamond at Agra which is worth one million rupees. That you may offer to Allah.

Babar : How can I do that ?

Maulavi : Huzur, you sell it in the market and distribute the money obtained in charity to the needy and the poor.

Babar : (*After thinking for some time*). It is true that the diamond you refer to is very precious. But I have something with me which is even more precious than that diamond.

Maulavi . What is that ?

Babar : My own life ! I can offer my own life to

Allah to save the life of my son. O king Allah, I offer my own life to save the life of my dear son Humayun (*He shuts his eyes and prays silently*).

I am sure Allah will answer my prayer and save my son.

(The story goes that Humayun recovered completely from his illness).

The author, who has experimented with the dramatic method both at a training college and in ordinary classroom conditions, has found it very successful in the interest it has aroused. Dull topics (from the child's point of view) like the legislature and the judicial system, have sprung to life when dramatized, and have held the attention of the class throughout. The labour involved in thinking out and preparing the playlets was well spent, and, once prepared, the playlets were used over and over again with but slight modifications.

The keynote to success lies in the writing of effective dialogues and in the right choice of actors.

□

Play-Art

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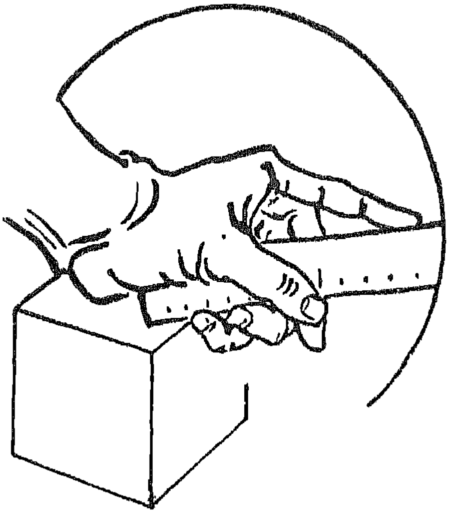

IT IS COMMONLY BELIEVED that artists are born not made, but this is not entirely correct. Although it is true that the great artists of the world were born with certain gifts, this is not to say that artistic skills are practically unteachable We can train children in the imaginative use of lines and colours, and such exercises are bound to be rewarding.

When a child first goes to school his mind is not quite a clean slate. His abilities and traits are quite apparant at this stage. He is curious about everything and has numerous questions to ask. It is the duty of the teacher to answer his questions and help him resolve his own problems. A good teacher can in various ways help a child to develop his latent abilities.

I would like to describe here a few creative activities which require the use of colour and brush. It is a matter of regret that in the art classes in our schools the children are taught just to draw a few figures. The art teachers believe that their duty ends here. This of course does not help a child to develop his artistic talent. A child can get through the examination by reproducing the figures he has been taught to draw but he can never by himself produce anything original and imaginative.

It is time these traditional notions about art teaching were dropped and a new approach adopted. A child can just be left to play around with water-colours, brushes, pens, and sheets of paper. He may be asked to draw anything of his choice on the wall. He may use his imagination and paint on the wall or on paper in any manner he fancies. The following methods may be helpful in initiating children in play-art.

Mix a number of paints and ask the children to make colourful patterns by smearing their fingers or palms with paints and leaving impressions on the paper (Fig. 1, see cover of this issue). Interesting impressions can also be made by using a thick

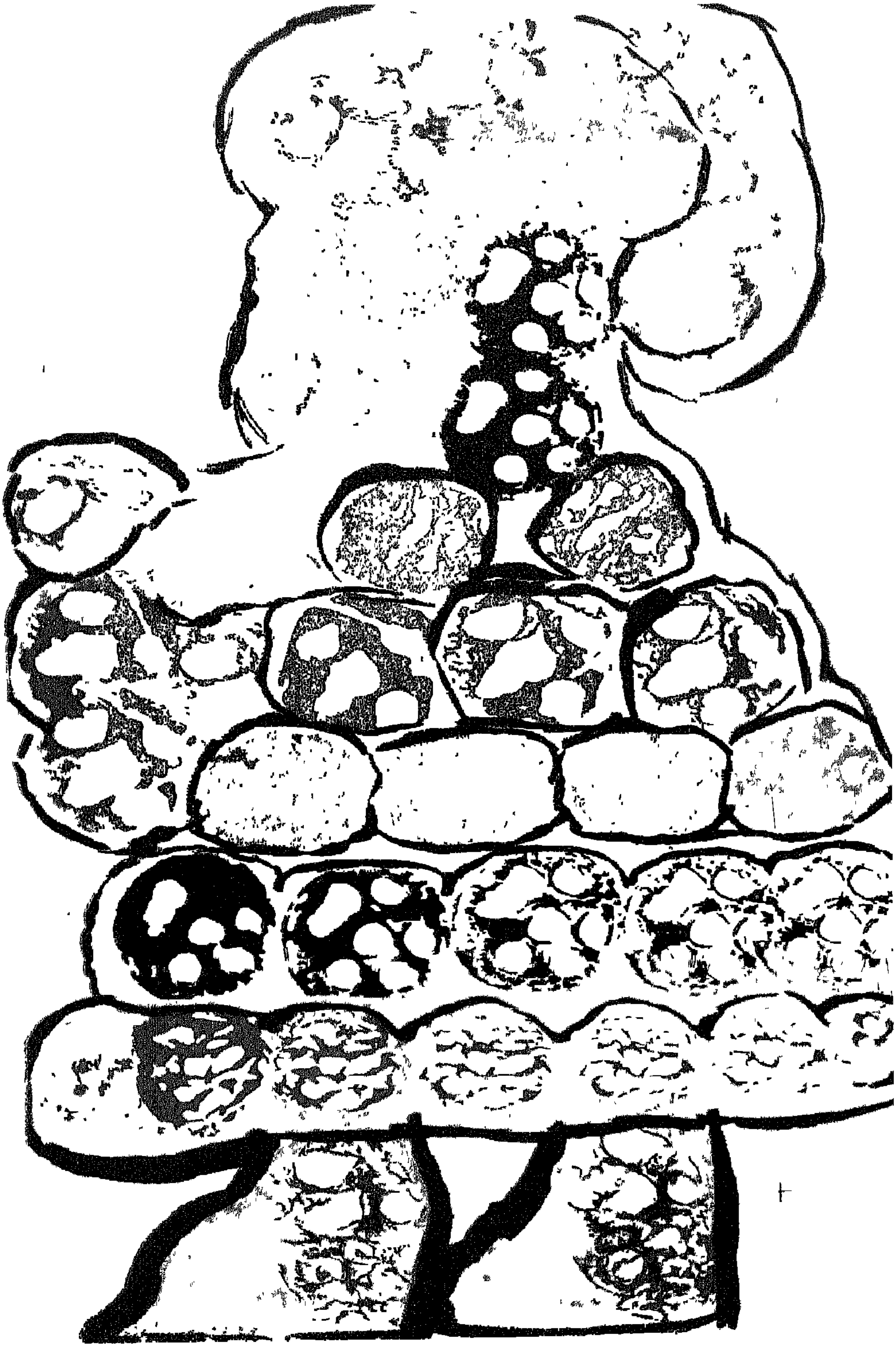

Fig : 3 चित्र : ३

Fig : 4　　　　चित्र : ४

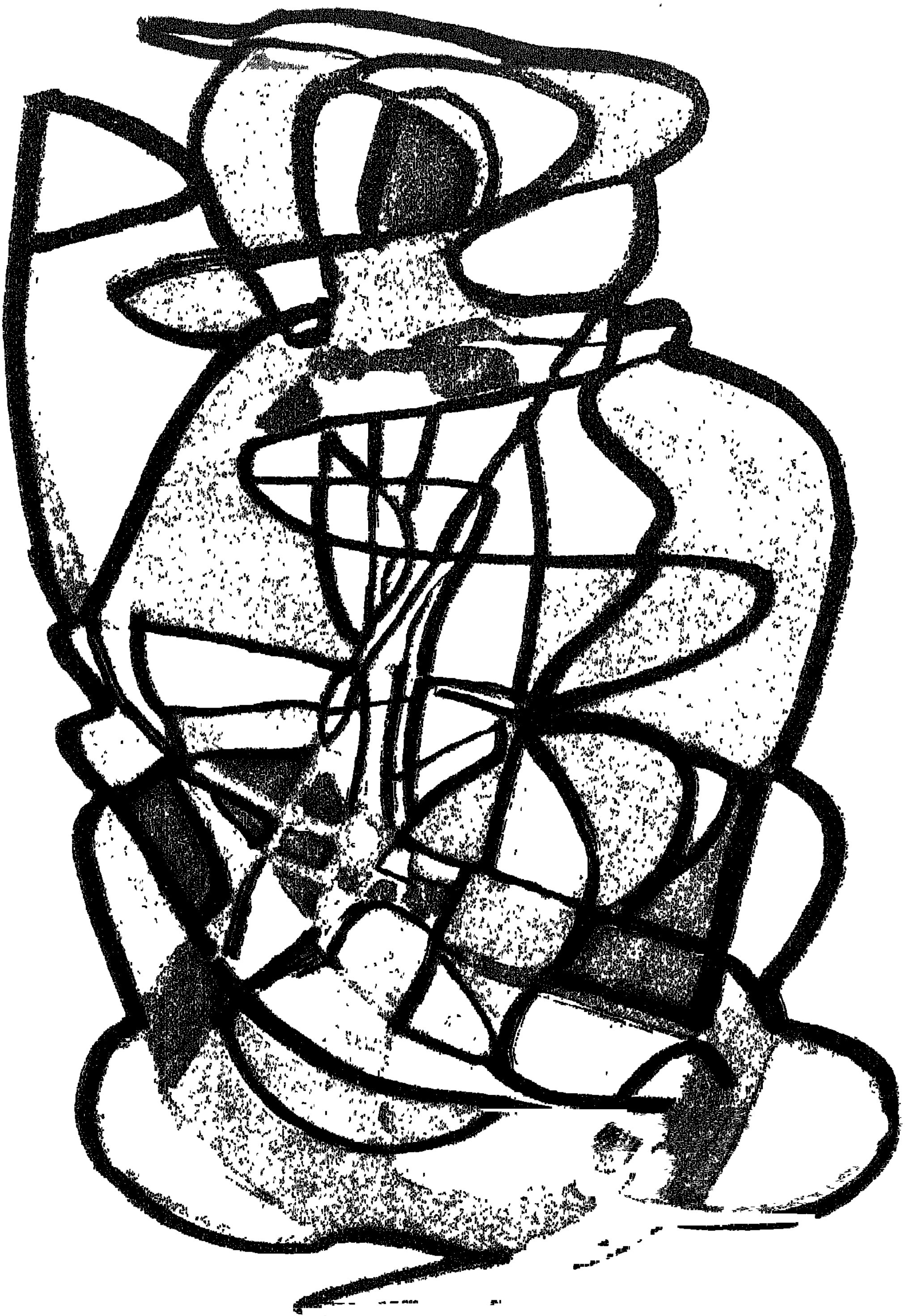

Fig : 5 चित्र : ५

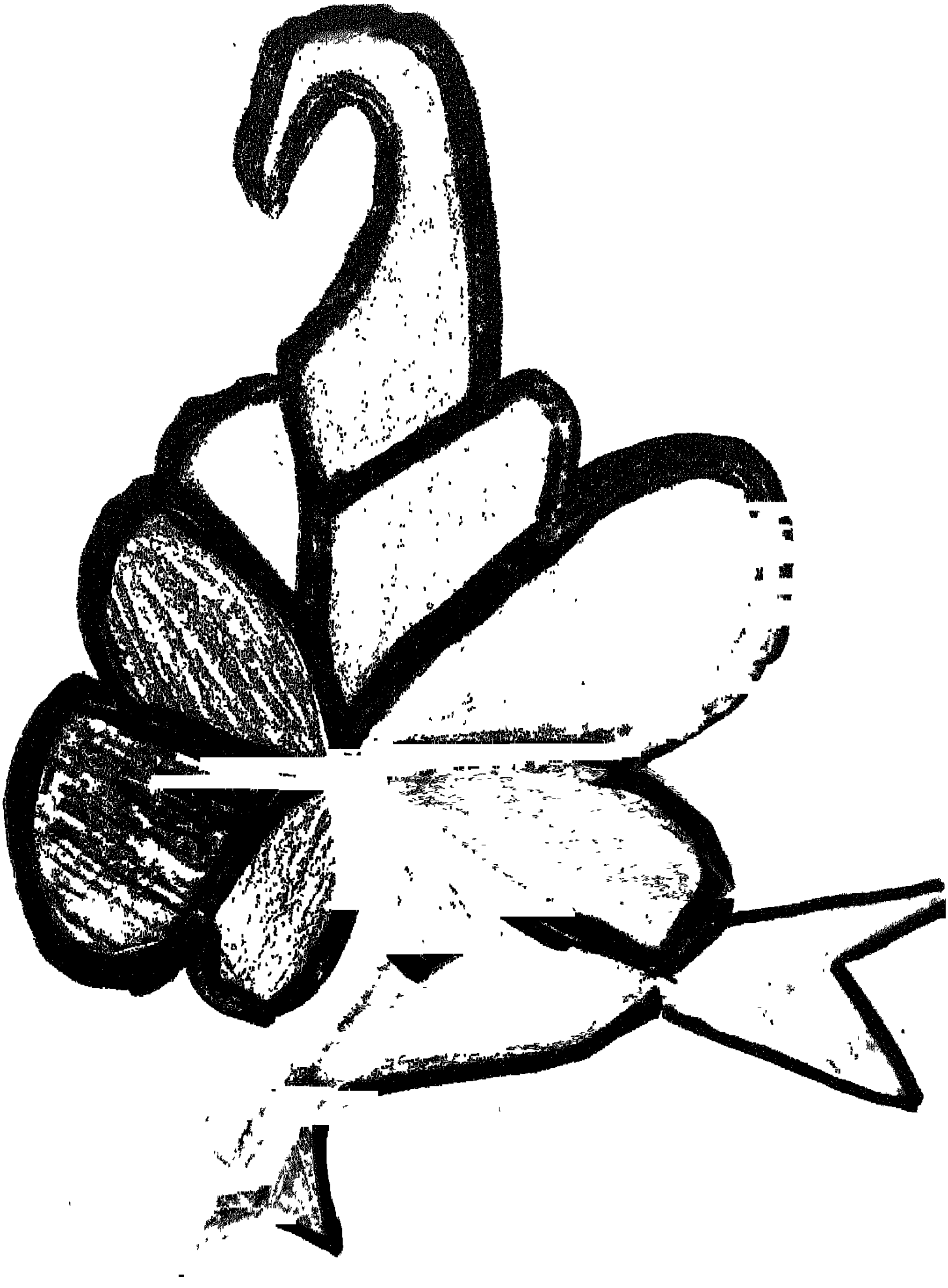

Fig : 6 चित्र : ६

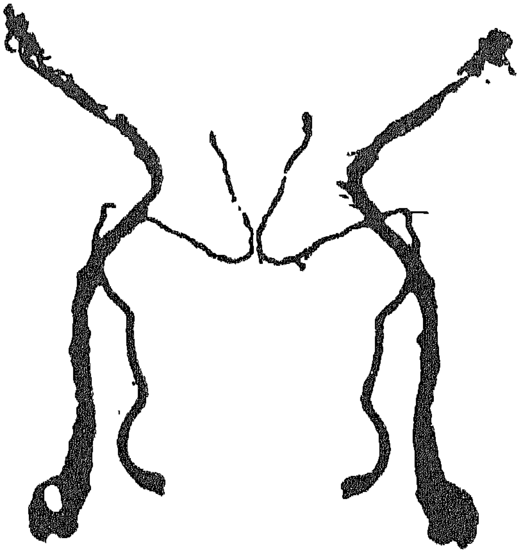

Fig 2

thread or a potato with a figure cut in relief. These may be used after they have been dipped in paint. For instance, the cover picture carries finger-prints in different colours. If you observe it very closely you will notice that it is not just an abstract pattern. There is a 'picture' in it. In Fig. 2, a thread soaked in black paint has been pressed between two sheets of paper to make an impression. In Fig. 3, potatoes cut in half with designs in relief have been used for stamping impressions in different colours. In the beginning these impressions are not always very attractive but the quality is bound to improve gradually. This play with colours is always a hit with the children.

After colours, we can take up lines. In the beginning, we use lead pencils or coloured chalk and ask the children to draw anything they like on paper or on their slates. When the children have sufficient practice they may be asked to draw geometrical figures like circles and fill them in with chalk or crayons. They should be free to use any colour they like. At a later stage, they may be initiated in the use of water-colours and paint brushes. Wax or oil pastels may be used to scribble on paper and the paper may then be given a water-colour wash. This would make interesting patterns as water-colour would not show on the pastel scribble. In Fig. 4 felt pens have been used for scribbling a pattern. In Fig. 5 water-colours have been used to fill in outlines. There is another process called 'crayon resistance': wax colours are used for scribbling and the children are asked to paint with water colours over it. The waxed parts of the paper surface will resist the water-colours, and the unwaxed parts will accept the colours. A new colour pattern will emerge as a result.

Cutting and pasting of painted paper is also an interesting exercise. The children can be asked to cut out their drawings and paintings and paste them on a sheet to form regular designs or irregular patterns (Fig. 6). Collage, applique, and pottery may be taught at a later stage. In any school, in a village or a town, a teacher can use these techniques for developing the children's imagination and their creative ability. ☐

Equalizing Opportunities Through Pre-School Education

ONE OF THE SCHOOLS in the city slums during May-June last year had the agonizing experience of recording 'nil' results in the SSLC examination. The students concerned, their parents and the teachers were deeply distressed at this calamitous verdict. The headmaster's lament was the loudest because he was already nursing a bruise to his esteem caused by the school's low-key performance in the preceding years. He had been taking steps to encourage the staff to put in their best to improve the academic standards and performance of the students. And yet, it did not work.

In varying degrees, this is the problem faced by many schools in the urban slums. The children seem to be unable to meet with the puzzling demands made by the schools. Inevitably, repeated failure generates in them a feeling of incompetence and causes loss of motivation. Teachers, on the other hand, are bewildered as they do not know where to begin the mending.

This is a matter of concern not only for the teachers but also for the entire society. It is a challenge to education. How it is met will decide the direction and content of the common man's life. The solution for the problem does not however lie in the new school structure of ten plus two, or renovations of curricula and enrichment programmes or even a multiplicity of new methods of teaching. For the underachievers, who come from the disadvantaged sections of the community, these may not be very useful as they presuppose the existence of a certain level of attainment and skills in the student. For the middle class student, they may perhaps work because of the superior environment he comes from, but to a culturally deprived child, they do not provide motivation towards intellectual mastery and scholastic achievement. The solution lies in the provision of pre-school education to children coming from poor and underprivileged homes. If we are to compensate for their deprivation and equalize opportunities, pre-school education is the best means to achieve the end.

Although the Constitution provides for universal, free and compulsory primary education, this objective has not been achieved even after 30 years. Unless the economic and psychological barriers in the way of its fulfilment are removed, we might not be able to provide equal opportunities for the weaker sections of society. And the best route to equal opportunities undoubtedly is through education.

It is a well known fact that children from socially and economically deprived classes lack learning orientation which is essential for school success. They live in crowded homes with parents always struggling to make ends

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meet, with no clear objectives for the future and frequently no successful adult models to motivate development. The parents are generally illiterate or semi-literate and reading is not their idea of recreation. Therefore, the homes lack books and reading material. The large number of children in the family and the consequent financial burden on the father makes it impossible for him to spend some time with them in exploring the world and helping them in the development of a differentiated self-concept. These and other manifestations of cultural deprivation predispose the child to scholastic retardation. Dr. Bloom has pointed out that the long-term effect of living in a culturally deprived as against a culturally abundant environment is likely to be substantial—it might mean a difference of 20 IQ points. This is really a huge difference in terms of society's and schools' expectations—a difference between an individual hardly educable for unskilled work and a youngster good for college education. But it is believed that a change in environment can raise a child's potential dramatically.

The most suitable agency for providing environmental compensation is the school. It is here that the necessary stimulation for facilitating learning, psychological maturation and acculturation can be most efficiently organized and carried through. The two processes of learning—assimilation and accommodation—which Piaget describes as "schemata" or patterns of behaviour, can be exercised in school under the influence of trained teachers. But the tragic part of it is that by the time the slum child enters primary school the harm has already been done Quoting Bloom, the 20-point IQ difference in terms of the slum child's development is spaced as follows : from birth to four years of age, 10 IQ units ; from four to eight years of age, 6 IQ units and from eight to 17 years of age 4 IQ units.

The implications are grim : at age four, the nursery school age, the slum child has already fallen far behind the privileged child From then onwards, it is a struggle for a unattainable success in school. No wonder we have hundreds of dropouts in the first standard of primary school. Because of the middle-class bias in our schools, it is also possible that the schools eventually destroy the self-image of the underprivileged child and push him out.

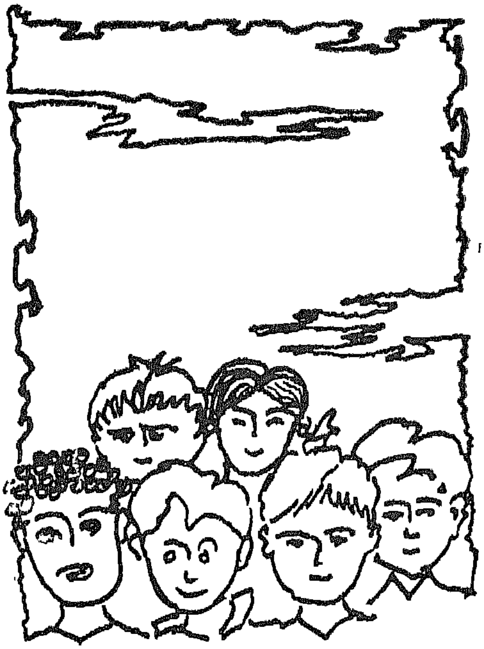
In our country, pre-school education is availed of only by children from well-to-do families. It is too expensive for the poor. Strictly speaking, it is the disadvantaged children who stand more in need of this facility for reasons already mentioned. It would not cost much if the primary schools now existing in slum areas were to attach nursery classes for the three or four-year-olds. This is the best way to provide a different environment to the child and help in his socialization. The stage of development at three or four coincides with the early part of what Piaget calls the "pre-operational stage". It is at this stage that the child is going through the later stages of early socialization which requires the focussing of his attention with the help of auditory and visual stimuli. At this stage he learns through language to handle simple symbolic representations. It may be pointed out that it is at this three to four-year-old level that organized and systematic stimulation through structural and articulated learning programmes might successfully prepare the child for the more formal and demanding structure of the school. Any compensation for early deprivation can most meaningfully be introduced at this stage of the child's development than at the first standard stage when the child is less plastic and the problem becomes more complex.

The early enrichment programmes can be based on the technology developed by Maria Montessori for organizing perceptual stimuli. The colours, shapes and textures give stimulus for sense perception and involve also the play instinct in the child Systematic exposure to new learning elements based on prior experience could speed up learning.

Besides sense training, language enrichment should be given priority in the developmental programme. Lower class children lack proper language articulation due to limited vocabulary. In concept formation and problem solving, language plays a crucial role. Research findings indicate that class differences in perceptual abilities and general environmental orientation decrease with chronological age, while language differences tend to increase.

Among the 'lower' classes language is used more to express concrete needs while in middle-class homes the use of language is more formal and related to concepts. This might be the reason for middle-class students in secondary schools doing better in answering essay-type questions than their lower-class counterparts. The communication gap we sometimes notice between a middle-class teacher and a lower-class child is also explained by this factor. Its implication for the curriculum in the pre-school or nursery classes would be that a great deal of verbalized routine and regulation should be offered to these children. In addition, a good amount of interaction between children and adults (teachers in this case) should be encouraged. In this way, speech sequences and syntactical organization which are found deficient in lower-class children can be improved gradually. This again implies that what is at fault is not so much the child's basic ability or intellectual level, but the lack of social experience. Pre-school enrichment programmes therefore must include training in the use of word sequences to relate and unify cognitions. Encouraging children to talk more, using more vocabulary, is claimed to result in training their memory and discrimination and in improving environmental orientation. ☐

How They are Doing It in Other Countries



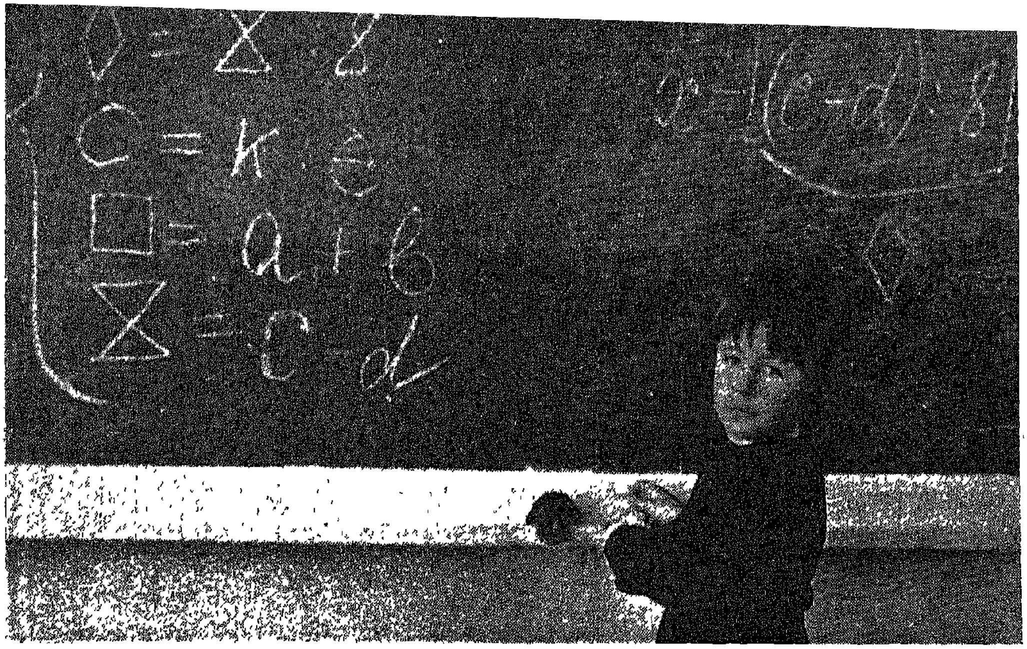
Achieving the impossible is great. But exploring the limits of the possible is no less a feat. Because it is only by exploring the limits of the possible that we can prepare ourselves for trying the impossible.

In primary education, they are trying out the limits of the mental power of the 7-8 years age-group in the Soviet Union. There the primary students get their first taste of abstraction through simple algebra from the first form onwards. We would like to call such experiments 'exploring the limits of the possible'.

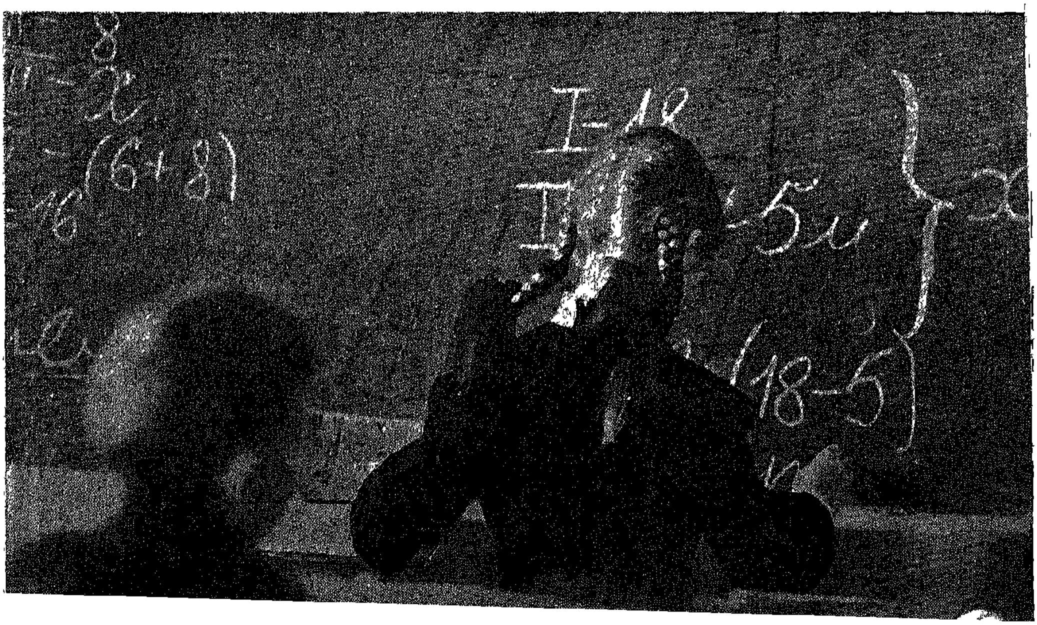
In this context we should recall the findings of Maria Montessori (1870-1952): "Within the child there is a very scrupulous and exacting teacher, who even adheres to a time-table, and at three years produces a being whose acquisitions are already such that it would take an adult sixty years of hard work...to achieve as much".

The main aim of primary education is to make the child aware of his enormous mental capacity and to encourage him to use it.

Are we, here in India, going to explore the limits of our children's mental capacity? □



...Their first taste of abstraction...



Guidance in an Elementary School

HARISH CHANDRA
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Gurgaon, Haryana*

RESEARCHES in child development have shown that the early school years significantly influence the child's development of attitudes, values, aspirations and the child's basic concept of self. At this age level, the child is involved in decision-making processes without much training and thinking and in controlling pressures that might be adverse to academic achievement, brought upon the child by the home environment. The importance of the early years in the development of the child has been indicated in recent researches. It is being noted by educators that behaviour which was once peculiar to adolescents such as rebellion, underachivement, apathy, delinquency and lack of cooperation, are now frequently observed in pre-adolescents. The foundations of the future personality are laid during the first few years of the child's life. The child therefore needs to be helped and guided in developing the right habits, attitudes, interests and personality—qualities for living a healthy and well-balanced personal and social life. Thus, new approaches to children's problems, relating to the development of personality and learning facility, are needed at the elementary school level.

Unfortunately, our elementary teachers at present are not fully aware of the needs, as well as the problems of the children they teach. The need for providing an effective guidance programme in relation to the fundamental concepts of developmental guidance has therefore to be recognized. In that sense it is through the guidance process that educational experience could take a personal meaning for the child. At the elementary stage the child's dependence on his parents and teachers can be observed. School guidance services would therefore have to be two-fold in purpose. As such the following main objectives of the programme for teachers may be mentioned:

1) Assistance in the total educational programme to meet the needs of all students in intellectual, personal and social areas, promoting understanding of the child's abilities and interests and his awareness of opportunities.

2) Promoting self-direction, and the problem-solving and decision-making abilities of the child.

3) Developing wholesome attitudes and concepts

4) Assisting the child to plan, make choices, and thus equip himself to solve present problems and tackle the future ones.

5) Developing the child's sensitivity to the needs of others, resulting in social awareness.

6) Assisting the child in areas of work and social development.

7) Offering assistance to the child whose learning in a particular area is poor, when this deficiency is considered to be the result of emotional difficulties.

EDUCATIONAL GUIDANCE PROGRAMME

Besides instruction, a comprehensive educational programme at the elementary stage should aim at developing good habits and attitudes. The child needs to be helped in exploring his talents and improving his understanding. He has to be oriented to new modes of living and thinking. Further, he has to be helped to adjust to the environment both within the school and outside. The child has also to be helped to develop his basic potentialities in a systematic way through a varied programme of curricular and co-curricular activities. In short, there is a great need for providing a stimulating environment. The following may be some of the specific guidance activities at this stage.

1) Orientation to School : This is particularly important for children who have just started attending school. The child, as he starts attending school, has many adjustments to make. He enters a new and expanded environment and is away from home for the greater part of the day. The shy, overprotected child feels lost, the spoiled aggressive youngster may become resentful. So the child would need motherly love and affection. The teacher should help the children adapt to their new environment. The school should also provide play material.

2) *Remedial Guidance:* Normally a child should have no difficulties in achieving learning success, if he is ready for school, and the curriculum materials and teaching procedures are adjusted to his abilities. However, for children who have specific learning difficulties, appropriate remedial guidance should be provided so that they do not lag behind or become discouraged. Some diagnostic devices will have to be used for this purpose. It is easier to correct deficiencies at this stage than later.

3) Fostering Right Attitudes: Good family relations and social adjustment within the family become the cornerstone of present and future adjustment in the community. A lot has to be done to improve relationships between children and other members of the family. Juvenile delinquency and poor mental health of children are two of the many manifestations of faulty adjustment. These must be rectified in childhood. Help of a more personal nature is required, in which the pupil, his parents and other relatives may be involved. The school should maintain close contacts with the parents and the community. The home still remains the primary influence in the life of the child during these years. Monthly parent-teacher meetings, informal visits to the school by parents, observation of their children's activities during the school hours and parent-student conferences are a must, if there is to be all-round development of the child at home and school.

4) Outdoor Activities: It is important that young children should learn good habits and group manners. They should develop social responsibilities, and a feeling of belonging to the school community. The school should also attend to their physical development. A rich and varied programme of co-curricular activities, being an essential part of the total school programme, would be very helpful in developing an integrated personality. Outdoor activities would not only supplement classroom activities, but would also act as an agent for realizing the social aims of education. Among the activities that an elementary school could organize, the following may be cited: pupil-teacher conferences for school government, bringing out a school newspaper, hobby clubs, dramatics, community-sponsored projects, activities for civic and social development, field trips for nature study, team games, etc.

5) *Maintenance of Cumulative Records.* An accurately prepared record should be kept of the background, health status, personality characteristics and school progress of every child in the school. This record should be cumulative from grade to grade and it should be passed on to the next school, should a child change schools The data in this card should be available to all who are responsible for the child's development and should be studied by them. The attitude taken towards the child should be guided by the information about him contained in the card.

(6) *Child Study Centres for Teachers:* It is not possible for teachers to pay individual attention to all children at the same time. In general, neither the staff knows enough about the children they teach, nor do the children experience a rich enough experience in coming to understand themselves. A programme of child study has therefore to be initiated in our elementary schools to enhance the teachers' understanding of the pupils. It may be suggested to the teachers that they select one child for study at a time. A child who looks unhappy, withdrawn, undernourished, too quiet or seems

unmanageable or is not keeping pace with other children in classwork may be selected.

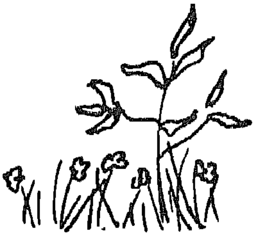
A comprehensive case study of the child may be made in relation to such factors as home conditions, health, educational history, adjustment in the school, etc. This information must be kept confidential and it should, on no account, hurt the child. The case study may be discussed in the staff study circle and plans made to find ways and means of helping the child. Sometimes it may be considered necessary to introduce changes in the child's environment or the child may be helped to change some habits found annoying to others, so that he could feel accepted and at par with others.

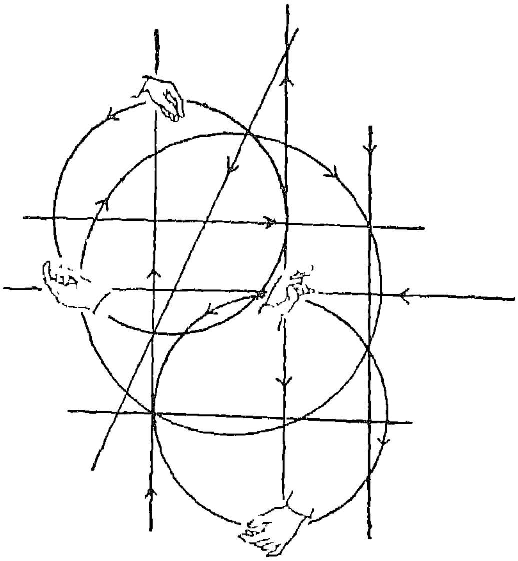
VOCATIONAL GUIDANCE PROGRAMME

The purpose of vocational guidance at the elementary stage is again mainly developmental and orientational The child is to be helped at this stage through curriculur and extra-curricular activities to develop his basic skills and attitudes, which are important to successful work. Doing one's job well, doing it neatly and systematically and with the cooperation of others, are some of the essential requirements of a good worker. The elementary school stage is the most important one from the point of view of development of healthy habits and attitudes. The character-developing potentialities of the craft (work-experience) subjects taught in the elementary school have to be fully realized. Some of the important qualities which can have vocational significance can be developed among pupils through systematic teaching of crafts at this stage. Such activities should promote:

1) Respect for manual work;
2) Training in the use of hands;
3) Good coordination between eyes and hands;
4) Neat, systematic work, orderly arrangement of material;
5) Spirit of cooperation;
6) Sharing of gains with others;
7) Good interpersonal relationships,
8) A desire to do better;
9) Critical appraisal of one's own products;
10) Development of saleable skills.

The school should see that these qualities are developed to the best advantage of the child. The possibilities latent in other subjects like language, social studies and environmental studies for the development of certain important modes of thinking and living have also to be fully explored. Abilities, aptitudes and interests develop only in and through an environment. A programme of activities has to continue throughout the elementary school stage with necessary changes in the form and content of the activities. Gradually, the child should be gathering sufficiently useful information about himself. Information about various vocations may also be given from time to time by means of visual aids like career films, film strips, posters, charts, etc. Nothing could perhaps give a better realization of the close relationship between education and guidance than a study of the aforesaid programmes of guidance at the elementary stage. These are going to help the children to make a good beginning. By organizing systematic guidance at this stage, a school can increase its retaining power. The children would be prevented from dropping out and there would be better utilization of human resources. For the benefit of the coming generations, it is high time that a carefully thought out programme of guidance was introduced and given a place in the total scheme of education for elementary school children. □





Socially Useful Productive Work

A CONVERSATION PIECE

Goswami Ram Balak
Gyankunj, Dudhpura,
Samastipur, Bihar

Giriji : Good evening, Sharma. Do come in. How do you do?

Sharma : Good evening. Were you present at yesterday's meeting?

Giriji : Oh Yes. I heard a good talk on the changing pattern of education.

Sharma . Yes, the talk on the new system of education was quite informative, but what is this 'socially useful productive work' that was referred to in the talk?

Giriji : Yes, something was said about it. But, honestly, I failed to appreciate its significance.

Sharma : According to the recommendations of the Education Commission, Socially Useful Productive Work (SUPW) is to be made a compulsory subject. But what are its objectives and why is it so necessary to offer it?

Giriji : You may look at it this way. SUPW is meant to make education more goal-oriented and purposive and adapt it to the needs of the family and society.

Sharma : What would that lead to?

Giriji : SUPW would help in linking education with productivity, by developing desirable attitudes and values. The character of children would be developed. Ah, Mr. Sinha has also joined us. Good evening Mr. Sinha. Please take a chair.

Sinha : Good evening. What is the discussion about? Is anything the matter?

Giriji : Mr. Sharma was inquiring about SUPW.

SINHA : Its introduction is of utmost importance. Traditional education cannot develop all the desirable traits in children.

SHARMA : Is that sought to be achieved by the introduction of SUPW?

GIRIJI : The gulf between education and vocation has widened. Science and technology have influenced the lives of people both in urban and rural areas. Consequently, a lot of changes have occurred in our manner of producing things.

SHARMA : SUPW then is a must.

GIRIJI : Yes. For the sake of modern living, developing basic abilities to use machines, tools and electrical gadgets is very necessary. We have in our villages tube-wells and several other types of agricultural implements. It is hoped that by the time the children of today grow up, they would find electricity in all the villages. Tube-wells, tractors, power-looms, refrigerators, pressure-cookers, etc. would be in use everywhere.

SINHA : What is the role of the teacher in this programme?

GIRIJI : It is essential that we design an educational system for, say, the coming 15 years. The new pattern would enable the child—the citizen of tomorrow—to learn to lead a better life in a city or village. The Government of India has taken a decision and declared SPUW a must

SHARMA : Is this to be an additional subject?

GIRIJI : Certainly not. This would lead to productivity and respect for labour. It is an inseparable part of education.

SINHA : You mean SUPW is to be integrated with other subjects in the curriculum?

GIRIJI : Right, that is why it is being made compulsory.

SHARMA : Would it be a separate activity in a school?

GIRIJI : No.

SHARMA : How?

GIRIJI : Non-productive work limited to the classroom is not SPUW

SINHA : How would children get education through SUPW?

GIRIJI : SUPW leads to the acquisition of several types of concepts and skills. These skills may one day enable the child to earn a livelihood. It is necessary to link SUPW with the environment.

SHARMA : Could you give me an example?

GIRIJI : Well, for example, students can be shown a manufactured item and told about the raw material for the product. Where do we get this material from? How did the material reach here? Who grows or produces it? What are the expenses involved in its production, transport, carting, etc? For whom is it useful?

SHARMA : SUPW is then teaching related with work.

GIRIJI : Yes, you are right. One must also teach the how and why of things.

SHARMA : Now could you tell us how this would lead to the intellectual growth of boys and girls?

GIRIJI : It would develop the scientific temper in children. They would learn scientific principles. This would help them learn how the environment could be improved with the help of science and technology.

SINHA : What would be its use then?

GIRIJI : SUPW would help children learn how productive processes are useful for society, how they lead to the economic growth of the community.

SHARMA : Would SUPW be the same for all the standards ?

GIRIJI : No. The programme for each class will have to be selected very carefully.

SINHA : How would you do that?

GIRIJI : SUPW takes care of the immediate neighbourhood.

SHARMA : You mean locality?

GIRIJI : Yes. A quick survey of area-skills would help the school tremendously.

SHARMA : Would this mean that SUPW programmes would vary with each area?

GIRIJI : Yes. They would vary even according to age-groups.

SHARMA : What do you mean by class-wise variation?

GIRIJI : To start with, they would be simple. They would gradually become complex.

SINHA : What does that mean?

GIRIJI : At the primary stage it would be simple creative work.

SHARMA : Please explain.

GIRIJI : Take the example of a primary class. The tools to be used would be simple and the raw material readily available.

SINHA : How much time would it get in time-table?

GIRIJI : SUPW may not be allocated too much time or it would become drudgery.

SHARMA : Whose cooperation do you need?

GIRIJI : We may seek the cooperation of skilled artisans for these programmes.

SINHA : You would recall we had craft education in our schools once. Is SUPW identical with that?

GIRIJI : Certainly not. It is much more than that.

SINHA : What is the essential difference?

GIRIJI : In craft education the stress was on production and not the process.

SHARMA : It is not simply vocational training, I hope?

GIRIJI : No. It may help a child in opting for a vocation later in life, but it is not just a preparation for it.

SINHA : How does one develop desirable traits in a child through SUPW?

GIRIJI : The programmes develop respect for the working class and for manual work.

SHARMA : It is a wonderful thing then.

GIRIJI : Apart from that, through SUPW children would learn about the production process. This would help them to become socially useful. They would learn the meaning of cooperative endeavour.

SINHA : Is that so?

GIRIJI : The child would learn about mutual cooperation and independent work.

SHARMA : Please tell us about the role of the teacher.

GIRIJI : Teachers have to play an important role. The success of the programme would depend on the sincerity and faith of the teacher.

SINHA : We ought to motivate the children first.

GIRIJI : They must realize its educational importance.

SHARMA : I agree. If the teachers are not convinced of its utility, the programme would fail.

GIRIJI : Their cooperation and enthusiasm is necessary.

SHARMA : We should propagate this concept through publicity media such as newspapers, radios, TV's, etc.,

SINHA : Without the parents' cooperation, we might not be successful.

GIRIJI : We ought to prepare carefully a plan of action and also maintain a record of the progress of activities undertaken.

SINHA : Shouldn't the teachers maintain registers in schools?

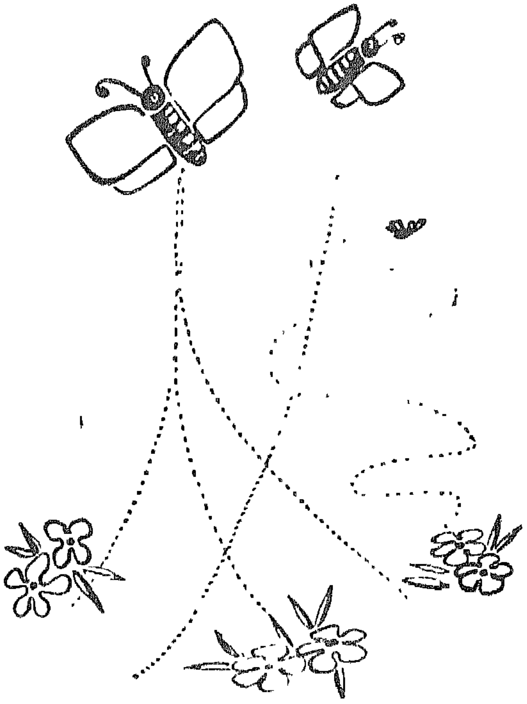
GIRIJI : Sure, that is how we would evaluate its success. Teachers must also be oriented.

SHARMA : Certainly. Theoretical knowledge is not good enough.

GIRIJI : We have a system of in-service training. Perhaps you now know what SUPW is all about.

SINHA : Thanks, yes.

TEACHERS WRITE



Literacy and the Primary Teacher

To persuade children to attend school and to retain them in the system is a big problem. A few are never admitted to school, and among those who are admitted, a good many drop out and remain illiterate. These children are a problem for the nation. This national problem can be resolved only by primary teachers, who can save the nation from illiteracy. True, they face numerous difficulties. Children require several facilities which are lacking in our schools. The teachers do not have the means to provide these facilities. But should they give up all efforts on account of this ? Certainly not. They must make individual efforts and see that all children in our country are literate. By considering the following points the teachers could certainly retain a few more children in school.

1) *Reading and Writing Material*

We are not a rich nation. Guardians are often not in a position to buy reading and writing material for their children. If the teachers were to seek the cooperation of village panchayats, they could get a few primers, slates, copies, pencils, etc. for distribution among poor children. If the village panchayats cannot help, other avenues can be explored for obtaining introductory books for those who are too poor to buy them. If your efforts help a few children to learn reading and writing, that would be a great contribution toward an important national goal.

2) Demonstration Material

The teacher should keep on his table a few pencils, ink-pots and holders. These should be lent out to those students who need them. This would not be very expensive, but would be of great help to the children. The teacher would then not have to bother about checking the children's slates and pencils. Children would never steal these things. Why would they take away things they can borrow ?

3) Establishing Contact

The teacher should make a tour of the village every week. He should meet the guardians of the children who have been absent for the best part of the week and request them to send their wards to school. Even if they do not agree, the teacher should continue seeing them. He should talk to children with love and understanding. At times, children and their guardians are conscious of their poverty and ashamed of their patched and dirty clothes. It is for the teacher to reassure them that pressed uniforms and shinning shoes are not essential for a school-going child. It is enough for them to be scrubbed and clean when they come to school. Such a reassurance will have a magical effect.

4) Young Schoolgoers

Most village women work in the field. Small children of the family are looked after by older children of the age-group 6-10 To enable the older children to become literate, it is necessary to permit the younger children in their charge to accompany them to school. Only then shall we be able to perform our duty and make them literate.

5) Part-time Students

Children who work as cowherds or shepherds, who may not be able to attend school full-time, should be allowed to attend classes part of the time. They should be allowed to spend as much time at school as they can spare, even if it is only a quarter of an hour daily. These children may be asked to repeat the old lesson and learn a new one. They can memorize their lessons at home. Even this effort can help children become literate. The need of the hour is a firm resolve to root out illiteracy from the nation.

6) Illustrated Magazines

We have in all the Indian languages illustrated magazines and journals which can be subscribed at a low cost. Bound volumes of periodicals can be used for years. Even small children like to see coloured photographs. Illustrations help to develop the imagination of children.

7) Games

Young children of standards I and II should be taught games. If one could get hold of a football it would be certainly wonderful but the games children play in the streets, which are often improvised, are no less interesting. For the latter no special arrangements are necessary. Sports weeks can also be arranged.

8) *Painting*

Children should be asked to draw and paint regularly. For subjects, they can choose from the things they see every day—fruits and flowers and bullock-carts, etc. This is a fascinating exercise for young children.

9) *Children's Councils*

Children can be encouraged to learn poems, puzzles and jokes. They could be asked to repeat these before their guardians.

These are only a few suggestions. The teacher may, according to his available facilities and convenience, devise any number of programmes to further the cause of literacy.

SATYA PAL 'BHARAT BHUSHAN'
Headmaster
Government Primary School
Mohali, Dist. Sangrur, Punjab

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Educating the Guardian : the Teacher's Task

IT IS BEING said that education has undergone a change. It has become more scientific and an effort is being made to relate book-learning to actual life. It is time the teacher also changed his attitude. To teach children is a duty they must perform. From the point of view of educational success, guardians also have a duty.

In a country such as ours where family ties are still very strong, the education of a child is very much a family matter. There are quite a few hurdles in the path of primary education. The reasons are quite obvious. Most guardians are illiterate or semi-literate. It would be irrelevant to say that they do not realize the importance of literacy. The fact is that no one ever tells them about its significance. There is an acute shortage of people who could bring about fundamental changes in their outlook.

The New Plan

Under the new educational plan, the school itself is reaching out to the children. It is also for the school to tackle the problem of illiterate guardians. While adult education programmes are being conducted here and there, they have already been reduced to a formality. In the cities, guardians' education is not as much of a problem as in the villages. If the village teachers take up the task of changing the attitudes of the people, most of the educational problems of children would be solved. They would know the importance of education and would send their wards to school. The need of the hour is for the primary teachers to shed their traditional attitudes. Their responsibility is not merely to teach children in the age-group 6-11 in a formal setting, they must also try to educate the guardians non-formally. This would help in the progress of the national education programmes.

Teacher-guardian Relations

This non-formal exercise is likely to improve teacher-guardian relations which have so far remained rather lukewarm. It would yield another beneficial result. The guardian would learn the special features of the new system of education and try to help his own children in their mental development. The school administration would therefore receive the co-operation of guardians instead of their indifference at the introduction of new schemes of education. Teachers who are dedicated to the cause of literacy would be more successful in their task if they performed this non-formal obligation.

SADARAM MACHALI
Assistant Teacher
Adim Jati Kalyan Primary School
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Madhya Pradesh

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News & Views

U. K.

TV : A danger to the urban child

Since the sixties, when television began, there have been numerous reports on the dangers of TV-addiction. Prof. Ivor Mills of Cambridge University reports yet another danger.

While TV is no threat to the majority of our children living in the villages, both parents and teachers in India should pay attention to the misgivings reported in the West, particularly in view of the growing popularity of the medium in this country.

Thrillers and suspense programmes on TV, Prof. Mills says, stimulate children so much that they can find school and studies boring. "If children are allowed to watch exciting programmes... the very act of watching will produce a state of intense stimulation". And if this nervous stimulation goes on for a long time, the child will not sleep well. "Fatigue, exhaustion, irritation, depression, frustration and other side effects soon begin to emerge."

"If a child is constantly stimulated by television, he begins to find ordinary life and school boring—unsatisfying. One result of this is that he may 'drop out', become ineducable." Children can become "addicted" to exciting programmes. When the stimulus is no longer there, they become depressed and irritable. "They will not play quietly, they argue unnecessarily, start fights—and may disrupt the whole family and school."

Depression follows, and the children make further trouble to create excitement that will mask their depression. "They are like drug addicts who keep on increasing the dose . eventually, no amount of stimulation will have the desired effect." In his quest for excitement, the child will not allow his brain rest. Prof. Mills' advice is to switch off the TV set or watch programmes that do not excite. Physical exercise also helps release tension built up by over-stimulation.

Schools to blame for truancy ?

Schools may often be themselves to blame for truancy, says a report of research into absenteeism in South Wales (UK) published recently by the University College of Swansea. The report urges a thorough investigation into how schools operate.

Too often in the past the researches have sought to explain pupil problems such as truancy by way of the pupils' homes and neighbourhood Rarely has there been any discussion or examination of the schools, their nature, their process and their operation.

"Much educational research of recent years tells us only what we knew to be the case already—that certain children from 'disadvantaged homes' are at a higher risk of being truants. The type of school regime that may exacerbate, or help, the process is rarely discussed because it is a question that is never explained," the report says.

A thorough investigation might reveal that blame for a pupil's rebellion lay squarely with the school. "If the reason does lie there then perhaps we ought to seek changes in some of our truants' schools", suggests the report.

WEST GERMANY

Expanding child education

West Germany's plans to expand elementary education are now being implemented according to the time schedule. The country plans to provide kindergarten places for 60 per cent of the country's three-year-olds, 80 per cent of four-year olds and 100 per cent of five-year-olds by 1980, according to a recent report.

An active policy of expansion has been pursued since the early sixties and during this time public investment in the pre-school sector has risen nearly by 800 per cent. The number of places in kindergartens doubled between 1963 and 1975.

FRANCE

Helping the child to form political opinion

The study of French and foreign newspapers is soon to be an integral part of the French school system.

The Education Ministry of France has announced recently that a working group is to be set up composed of teachers, educationists and representatives from the Paris and regional press.

Its job will be to work out a system whereby primary, secondary schools and lycees will have the newspapers made available to them—probably by introducing press rooms where newspapers and magazines of all types of political opinion are available.

"Pupils should be taught how to read their newspapers wisely and how to differentiate between the different political opinions available to them," the Ministry says.

Over the past few years, many teachers have independently introduced press cuttings into lessons, particularly for the study of history, geography and economics—but it is something that has not been encouraged by the authorities so far. □

9-1979

THE PRIMARY TEACHER

Vol. III No. 3 July 1978

The Primary Teacher is a quarterly brought out by the National Council of Educational Research and Training, New Delhi.

The jourual intends to give to the practising teachers and concerned administrators authentic information about the educational policies being decided on and pursued at the Central level. It aims at giving meaningful and relevant material for direct use in the classroom. It would carry announcements of programmes, courses of study etc, offered at various centres in India from time to time It would also provide a forum for the discussion of contemporary issues in the field of education.

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1. Letter from the Director, NCERT.
2. The educational policies concerning primary education.
3. Questions and answers.
4. States round-up.
5. Illustrated material for the classroom use.

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DESPITE SUSTAINED EFFORTS not much appears to have been achieved in the field of primary education. Several types of organizations, besides the Government, have made ardent efforts in the field. The Indian Constitution has accorded the right to education the status of a fundamental right and thereby it has set up a new standard. However, much has to be done before we feel satisfied. Lakhs of children who should be in schools remain unabsored.

It would be untrue to say that this situation obtains only in places where facilities are not available. Even where facilities are available, children are not motivated to attend school and neither are their parents eager to send them to school. It is this class of people who fail to realize the value of education. It is therefore vital to make concerted efforts to bring such children to schools.

These children have not only to be given books and other facilities in schools but they have also to be motivated to develop an attachment toward the school. The biggest question in this regard is what to do for the weaker sections of the society, backward classes, nomadic people and the tribals. The reason for this state of affairs is that we are not certain about the shape and the type of education to be offered to the children of these communities in particular.

Several educational problems can be resolved under the practice of total revolution. We are not certain how the facilities available in a developing country like ours could be utilized. There is a fear that the tool may become the object of educational achievement. There is no suggestion that modern facilities should not be used at all; only they should be used with discretion.

Even now we have not been

able to go into the problems of primary education. Most of the problems at this level are related to teachers' salaries, grades, supervision, management of the school, etc. We have still not been able to appreciate how to motivate children, how to involve them in school activities and how to present educational material so that it is easy to grasp.

We have put on the shoulders of the primary teachers a lot of responsibility but no teacher can succeed in this task unless cooperation is forthcoming from the society and voluntary bodies. The Government of India is determined that the teacher should be accorded all facilities and given all manner of cooperation. ☐

Some Common Errors in Solving Mathematical Problems

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Finding thecorrect answer to a mathematical problem by a method does not necessarily mean learning of mathematics. Mathematics, the science of sciences, is based on rigorous analysis, and any kind of error, however negligible it may be, is not allowed in mathematics. There are different types of errors in the solution of a mathematical problem. One may commit mistake in getting the final answer due to some mistake in numerical computation at the final stage, although his logic in solving the problem may be quite correct. Conversely, one may get the correct solution of a mathematical problem, but his logic, mathematical symbols, etc. may be wrong. The latter type of errors is more dangerous than the former, because it gives wrong ideas about the mathematical principles and logic. As a result, the students, instead of learning mathematics, may only pick up some techniques of finding the final answer to a problem. This may adversely affect the bright students in their study of higher mathematics in future.

Anything which violates the basic mathematical law in the solution of a problem will be called an error in mathematics. An insignificant symbol or expression will also be treated as an error. As a teacher I have come into contact with the students and teachers of all levels—from the primary to postgraduate classes—and I have noticed that even in many well known schools of big cities, teachers, particulary the primary teachers, are not so careful in correctly solving a mathematical problem. As a result, the students of even good schools could not develop the power of reasoning to detect their mistakes. If this is the condition of good schools, we can imagine the condition of the primary school students in the remote villages.

In the present article, I would like to point out the types of error that the primary school teachers commit in teaching mathematics to their students. I would also mention some problems as illustrations so that the primary teachers may be careful in solving mathematical problems in their classes correctly.

The most common types of errors that many primary teachers do in solving a mathematical problems are the following·

(*a*) Errors in writing units (rupees, metres, kilograms, hours, minutes, etc.) properly.

(*b*) Errors in using the sign of equality (=).

(*c*) Wrong placement of decimal points in writing rupees and paise.

(*d*) Errors in writing times associated with a.m. and p.m. and errors in solving related problems.

(*e*) Use of insignificant symbols in solving problems.

(*f*) Error in multiplying a decimal number by a non-decimal number.

I shall now discuss these types of errors with illustrations mentioning some problems and show how a teacher usually solves these types of problems. Errors will be explained and the correct method of solution will also be shown.

Errors as indicated in (*a*):

Problem 1. If 56 rupees ar
divided equally amon
7 students, how muc
will each student get

A teacher's solution: $56 \div 7 =$
rupees.

Answer: Each student will get
rupees.

Alternatively, he may solve th problem as follows:

56 rupees $\div 7 = 8$.

Answer: Each student will get
rupees.

Although the final answer i correct in both the cases, bot the solutions are wrong due t the fact that the result of divid ing a number by another numbe must be a number and the resu of dividing rupees by a numbe must be in rupees.

The correct answer will be:

Either

(*i*) $56 \div 7 = 8$.
Answer: Each student will get
rupees.

or (*ii*) 56 Rupees $\div 7 = 8$ rupees.
Answer· Each student will get
rupees

Problem: 2 Express 5 hours i
seconds.

A teacher's solution :

$$\begin{array}{r} 5 \text{ hours} \\ \underline{\times 60} \\ 300 \\ \underline{\times 60} \\ 18000 \text{ seconds.} \end{array}$$

Answer : 18000 seconds.

The above solution is nc completely correct. The resu of multiplying 5 hours by 6(which is a number, cannot be number; it should have a proper unit Again, the result of multiplying a number (300) by another number (60) must be a number and should not contain any unit. The correct solution will be as follows:

60 minutes
×5
300 minutes
60 seconds
×300
18000 seconds.

Answer: 18000 seconds

Problem 3: Change 15 rupees into paise.

A teacher's solution: 15 rupees= 15×100= 1500 p.

Answer: 1500 p.

The above solution is wrong, for 15×100 is a number which cannot be equal to 15 rupees or 1500. The correct solution will be as follows:

15 rupees = 15×100 paise
= 1500 paise

Answer: 1500 p.

Problems of similar type, involving addition, subtraction, multiplication and division, can be constructed where teachers commit similar type of mistakes. The teachers should be careful in writing the proper units correctly at appropriate places whenever they are concerned with problems of money, measurement, etc. They should remember that when a number is

(*i*) added to another number,
or (*ii*) substracted from another number,
or (*iii*) multiplied by another number.
or (*iv*) divided by another number,

The result will be a number without any unit. Similarly, when a number with a unit is

(*i*) added to another number with the same unit,
or (*ii*) subtracted from another number with the same unit,
or (*iii*) multiplied by another number with no unit,
or (*iv*) divided by another number with no unit, then the result must be associated with the same unit or a unit of similar nature.

Also, when a number with a unit is divided by another number with the same unit, the result will be a number. In the problems of measurement of areas, we are concerned with multiplication of a number with a unit by another number with the same unit. In this case, the result of multiplication must be associated with square unit.

Errors as indicated in (*b*)

Problem 1: Fill up the blank:

1/3 of 27 = ________.

A teacher's solution:

= 1/3×27 = (1×27) ÷ 3
= 27÷3 = 9

Here the equality sign at the beginning has no meaning. We should proceed as follows:

1/3 of 27 = 1/3×27 = (1×27) ÷3 = 27 ÷ 3 = 9.

Hence, 1/3, of 27 = 9

Problem 2: A rectangular garden is 24 m. long and 13 m. broad. If a girl wants to walk around the garden 6 times, how much distance will she walk?

A teacher's solution:

The girl will walk a distance of

$24m + 24m + 13m + 13m =$
$74m \times 6 = 444m.$

Although the answer of the above problem is correct, the solution of the problem is wrong. For, $24m + 24m + 13m + 13m$ cannot be equal to $74m \times 6$, i.e. 444m. Here the teacher should be careful in writing the equality sign between two expressions.

The correct solution will be as follows:

The length of the four sides of the rectangle.
$= 24m + 24m + 13m + 13m$
$= 74m.$
$\therefore$ The girl will walk a distance of
$74m \times 6 = 444m.$

Problem 3: Simplify : $5937 + 803 - 912.$

A teacher's solution:

$5937+803=6740-912=5828.$

The solution is wrong due to the fact that
$5937+803$ cannot be equal to $6740-912$.

The correct procedure will be:
$5937+803-912$
$=6740-912=5828.$

Problem 4: Find the price of 15 copies of a book if the price of 1 copy is Rs. 5.50.

A teacher's solution:

The price of 1 copy of the book = Rs. 5.50
The price of 15 copies of the book = Rs. 5.50

$$\begin{array}{r} \text{Rs. } 5.50 \\ \times 15 \\ \hline \text{Rs. } 82.50 \end{array}$$

Answer. The price of 15 copies of the book is Rs. 82.50.

In the above solution, the equality sign after the statement "The price of 15 copies of the book" is not properly placed.

The correct procedure will be as follows:

The price of 1 copy of the book = Rs. 5.50
The price of 15 copies of the book = Rs. 5.50×15
= Rs. 82.50

Answer: The price of 15 copies of the book is Rs 82.50

Errors as indicated in (c):

Problem 1: Add : 15 rupees 80 paise and 10 rupees 15 P.

A teacher's solution:

$$\begin{array}{r} \text{Rs. P.} \\ 15.80 \\ 10.15 \\ \hline 25.95 \end{array}$$

Answer: Rs. 25.95

The above method of solution is wrong. Writing of 15 rupees 80 paise in the form of Rs. 15.80p has no meaning at all. It should either be written as Rs 15.80 or Rs. 15 and 80 p.

(*i*) Rs. P.
15 80
10 15
25 95

Answer: Rs. 25.95 (or Rs 25 and 95 p.)

or,

(*ii*) Rs. 15.80
Rs. 10.15
Rs. 25.95

Answer: 25.95 (or, Rs. 25 and 95 P.)

Errors as indicated in (d):

Problem 1: A train arrived at a station at 7.15 p.m. in place of the correct time 6.55 p.m. How long was the train late?

Many teachers write the above time as 7.15 p m. and 6.55 p.m. to represent 7 hour 15 minutes in the afternoon and 6 hours 55 minutes in the afternoon. After explaining these times, a teacher asked his students to solve the above problem.

Students' solution:

7.15 p.m.
6.55 p.m.
.60

Answer: The train was late for 60 minutes. Although both the answer as well as the solution of the above problem are wrong, the teacher declared the solution as correct. Students had no fault in solving the problem as they had been explained to represent such times by using decimal number from another decimal number.

In fact, 7-15 p.m. and 7.15 p.m. are completely different times. For, 7-15 p.m. means 7 hour. 15 min. in the afternoon, whereas 7.15 p.m. means $7\frac{15}{100}$ hr. in the afternoon.

i.e. 7 hr. 15/100×60 min. in the afternoon.

i.e. 7hr. 9 min in the afternoon

The correct solution of the above problem will be as follows:

h-m
7-15
6-55
0-20

Answer: The train was late by 20 minutes.

Thus we see that using decimal points in representing times in the morning (a.m.) and afternoon (p.m.) is not only an error but also dangerous as it may lead the students to commit mistakes in solving other related problems as above.

Errors as indicated in (e):

Problem 1: Divide 42581 by 79.

A teacher's solution:

79)42581(539
395
×308
237
×711
711
×××

Answer: Quotient = 539
Remainder = 0.

But in mathematics, the symbol 'X' implies multiplication symbol. It certainly does not mean 0. These symbols used at various places as shown above are, therefore, insignificant. If there is no remainder, then either nothing should be written or only 0 can be written showin, that the remainder is zero.

The correct solution should be as follows:

$$\begin{array}{r}
79)42581(539 \\
\underline{395} \\
308 \\
\underline{237} \\
711 \\
\underline{711}
\end{array}$$

Answer: Quotient = 539
Remainder = 0.

Errors as indicated in (*f*):
Problem 1: Multiply 15.25 by 75.
A teacher's solution:

$$\begin{array}{r}
15.25 \\
\underline{\times 75} \\
76.25 \\
\underline{106.75} \\
1143.75
\end{array}$$

Answer: 1143.75

In the above solution, addition of two decimal numbers where the decimal points are not in one column has been performed violating the rule of adding two decimal numbers. This method of multiplication is wrong although the final answer is correct. The correct method of solution will be as follows:

$$\begin{array}{r}
1525 \\
\times 75 \\
7625 \\
\underline{10675\times} \\
114375
\end{array}$$

$\therefore$ 15.25 × 75 = 1143.75.
Answer: 1143.75

Alternatively, the problem may also be solved as follows:

$$\begin{array}{r}
15.25 \\
\underline{—75} \\
76\,25 \\
\underline{1067\ 5\times} \\
1143.75
\end{array}$$

Ans.: 1143.75

In conclusion, it may be mentioned here that teachers are sometimes misguided by the prescribed mathematics books for primary classes, where the authors commit these types of error in solving problems. Now a days, there are many such books where these types of error are found. Teachers should, therefore, be careful about these errors and they should not think that whatever is written in the book must be correct. It will be a great pleasure on my part if at least some primary teachers are benefited from this article. ☐

Teaching English in Primary Classes

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I HAVE TAUGHT English in middle and primary classes for about two years. I find that teaching English is more interesting and challenging in the primary classes than in the middle classes.

Before I go on to the techniques of teaching English, I would say a teacher must keep in mind the aims of teaching English in primary classes and should try to develop the following skills in children:

1) The skill of speaking English
2) The skill of reading English
3) The skill of writing English

Secondly, the teacher teaching English in classes I and II must understand the importance of suitable language material. The children should not be expected to learn everything at the early stages. Material, therefore, should be trimmed, selected and graded.

Qualities of an English Teacher

1) Before a teacher goes into the class, he must know thoroughly what is to be taught in the class that day. He should prepare for the class well and should be equipped with suitable teaching material.

2) The teacher teaching young children should be cool and collected. He should not get irritated if a child makes mistakes. After all, English is not his mother-tongue. He should give them a good deal of drill while teaching a new step in English grammar or composition.

3) An English teacher should remain active in the class. While drilling the children after a new structure has been taught, he should make them feel he is one of them and share their enthusiasm. The children, recalling the lesson taught the previous day, will remember the enthusiasm of the teacher. A good lesson has a lasting impact.

4) The teacher should always greet the class. .'Good morning', 'Good afternoon', etc. He should say 'thanks', 'please', whenever required in the class. Young children will learn etiquette and good manners only if their teachers set an example.

5) He should write the day and date, at least once a day, on the blackboard and see that the children also put them down in their notebooks before they start their class-work. Gradually, this will become a habit with them.

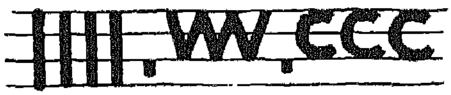
6) He should give the class a warming-up drill. Commands and requests that the children are familiar with through their lessons may also be made in order to refresh their memory. This setp may also be helpful for

teaching words or structures (e.g 'come here', 'go there'),

7) Class control is important, but a child should never be harassed. The teacher should be sweet to children and win their goodwill. Every lesson should be read out aloud by the teacher. A statement, if spoken with a rising intonation, becomes a question.

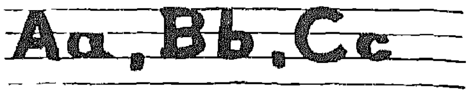
This is a book. *Is this a book?*
This is an egg. *Is this an egg?*

8) While teaching alphabets in the primary classes, the teacher should have the children practise freehand writing:



Such demonstrations should be given in the class itself. Students will thus gain confidence in writing. Freehand practice will help them to write well by forming letters carefully. The teacher should also write on the blackboard in the beginning. He should never write connecting letters and avoid a freehand on the blackboard, as his students are too young to follow such writing. (See Annexure 2).

As the pupils write, the teacher should go round and see that they hold their pencils properly, and note the strokes and direction in which they write. Use of handwriting copy-books will prove helpful. Students should not fill up the copy-book at home. Handwriting should be practised in the class. If small and capital letters are taught with care, it will be of great help:



9) The purpose of teaching a language is communication. Developing English language skills involves the development of listening, speaking, reading and writing skills in their natural sequence. The issue of medium of instruction is one that is hotly debated and it does have implications for the primary classes. The English language is a tool with which the child has to learn other subjects, like science, mathematics, etc. The credit will also go to the English teacher if a child does well in social studies or science, as the medium of instruction of these subjects is English. Keeping this idea in mind, the teacher should try to strengthen the language base of the children. And here the oral approach to teaching English will be of help.

Structural Approach

"Language", says J.B. Carroll, "is a structural system of arbitrary sounds and sound sequences which is used in communication and which is a fairly complete catalogue of the things, events and processess in a given environment".

The most systematic approach to English language teaching should be to treat the sentence as a unit of instruction.

For example:

This is a book.
What is this? *This is a pen.*

The teacher may write a few sentences of the same structure on the blackboard. He may then put questions, and ask the children to answer them, using sentences of the same structure. The teacher should not neglect students. He should appreciate their efforts and encourage them so that they may develop confidence. Such students should be given more chances. Thus, through controlled repetition of structures, through practice and drilling, they will form correct language habits.

Situational Teaching

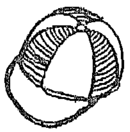
For effective teaching the structure should be presented in meaningful situations. The teacher should never translate a particular structure. It is language he is teaching, after all. The subject matter should be chosen carefully for presenting an unfamiliar struture. For example, the teacher may say 'This is my head', 'This is my mouth', and point them out.

Similarly, many constructions can be drilled through the teacher's orders, for example, 'stand up', 'come here', 'give me your pencil', etc. Routine classroom situations can be fully exploited to teach many language items in the primary classes. Dramatization, games, puzzles, etc. can be very effective. Pictures draw the attention of the child easily.

Use of pictures in teaching children new words has been a huge success.

The teacher may draw an incomplete picture on the board and ask the children to guess what he is drawing. He may show an object to the children, say, a ring, and ask them, 'What is this ?' Putting the ring into a bag, he may ask, 'Where is my ring now ?' Such drilling is always effective.

Rat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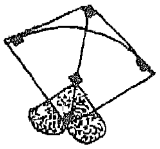

Kite

Substitutions Tables

These can be very useful for drilling sentence structures. They can be given as home assignments also, but the teacher should see that the substitutions are meaningful and not mechanical. A substitutions table is given below :

Poetry

At this age children develop a taste for songs and poems. The teacher should never translate the poem to them as it was done in the old days. It kills the charm and beauty of the poem. Learning would be more effective if the method given below is followed.

The teacher should find a simple, sweet and attractive tune for the poem he is to teach. A chart should be made illustrating the particular poem. For instance, if the following poem is to be taught

Two little dicky birds,
Sat upon a wall,
One named Peter,
The other named Paul,
Fly away, Peter,
Fly away, Paul,

There	is	a dog	in	the room
There	is	a book	on	the table
There	is	a cow	in	the garden
There	is	a bag	under	the chair

a well can be shown in the chart and two birds sitting on a wall. The child, looking at the chart, forms a clear image in his mind. He should never be asked to learn a poem by heart at home or in one day. The whole class should repeat the poem after the teacher with correct tune, intonation, stress on words, pauses, and rhythm.

Composition

The objectives of teaching composition are to give students practice in using structures, to develop fluency in speech, and to train them to express themselves clearly.

Now, the problem is that composition is generally disliked by the teacher as well as the student. But according to some educationists it may start as earlyas language work. It may start even before children have learned to write. For example, a child of class I or II may look at a picture and describe it : "Three boys and two girls are in the picture. The boys are playing under the tree. There is a dog with them. The colour of the girl's frock is red." The child has taken his first steps in composition, using simple words and structures to describe a picture.

Composition work can be oral or written. It is better to start with oral composition. It will help pupils to marshal their thoughts. It should not be given for homework. Controlled and guided composition work will be effective at this stage. If there are 20-25 students in the class, the teacher may ask each of them to frame a sentence. Students at this level should not be asked to write more than ten sentences.

Recapitulation

Recapitulation is important because the structural approach is based on frequency of usage, repetition and drilling.

This will make the memory of the young children sharp. The teacher must put questions about the lesson taught the previous day. He should have a question bank and all students should be given the opportunity to answer questions.

Language Games

This is a very effective method of teaching; learning by doing or while at play is an important modern technique. These games are interesting and relaxing for children, who thus learn more easily and better than by formal methods. Language games provide opportunities to practise what has already been learnt but has not been completely mastered. They are also a good device for doing revision work in an interesting way (see Annexure 1).

Children, by playing these games, acquire, useful knowledge unconsciously, without any effort or boredom. The games are numerous—writing games, matching games, word-making, anagrams, etc. Examples of anagrams are given below :

ACT	:	CAT
RAT		TAR
MAD		DAM

Spellings

Use of flash cards can be of help here. The teacher should never ask a child to learn spellings at home or he will start hating learning spellings. A word should be broken up into its syllabic parts, for example :

Pic — ture   Janu — ary
Mix — ture   Febru — ary

Once a word has been split into parts, the child will find it much easier to remember the spelling. Practice of some set patterns should be given in the class itself, e.g. map, gap, cap, gun, sun, run, etc.

After the children have been given spelling drill, the teacher may write words on the blackboard and tell them to recall the spelling pattern.

Singular and Plural

The effective method will be to show the children familiar objects (a pencil for example) while teaching them singular and plural.

This a pencil.	These are pencils
This is a book.	These are books.

Stress should be given on the articles and verbs. The teacher may draw pictures in some cases.

An egg

Eggs

An apple

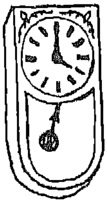
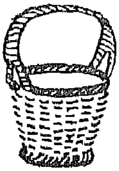
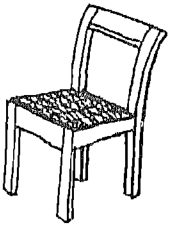
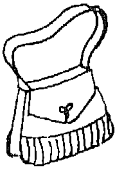
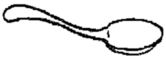
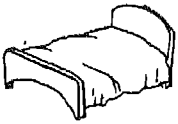
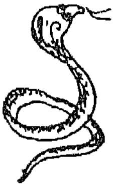
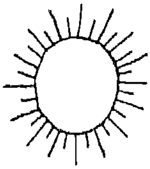
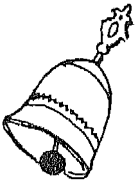
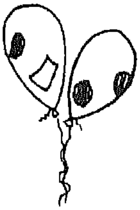
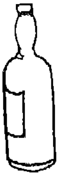
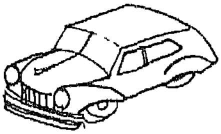
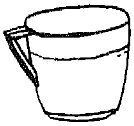
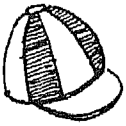
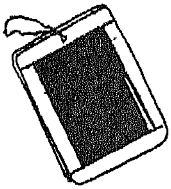
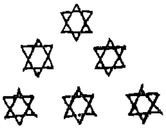
Apples

He may also use spelling charts, alphabet charts, etc

These techniques would make English teaching interesting and effective in the elementary classes. ☐

ANNEXURE 1

Language game

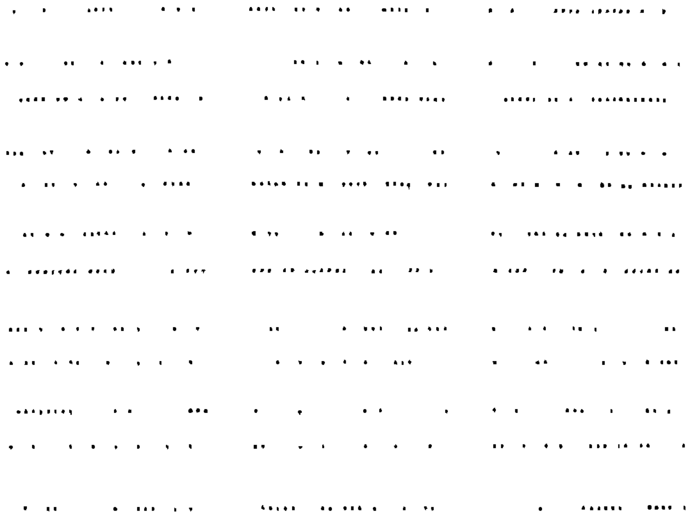

















Looking at the pictures write five words which start with :

C	B	S
....	....	....
....	....	....
....	....	....
....	....	....
....	....	....

Anagrams

Rearrange the letters to make words



(i) LIRAP

(ii) BATEL

(iii) TOBTEL

(iv) WOGR

(v) SPEAR

(vi) SIMS

Clues :
(i) It comes after March.
(ii) Not a chair or a desk.
(iii) It holds water or milk.
(iv) Get bigger.
(v) Little round fruits.
(vi) She is not married.

Which word does not go with the group ? Why ?

Group I	*Group II*	*Group III*
Finger	Orange	Elephant
Hat	Banana	Bed
Knee	Cap	Lion
Nose	Apple	Cow
Answer ———	———	———

ANNEXURE 2

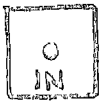
Teaching Alphabets

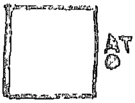
While teaching very young children to write, the teacher should proceed from the basic o practice to c, e **etc.**

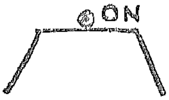
Once the kids learn to write O, they can go on to other letters without much difficulty. d, p, g, q

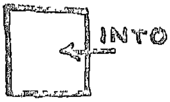
Prepositions

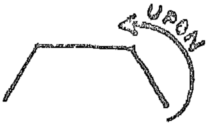
Figures can be used to teach prepositions:

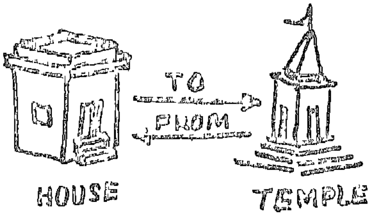


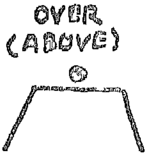


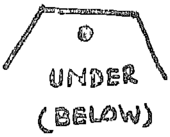


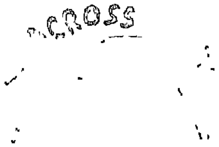


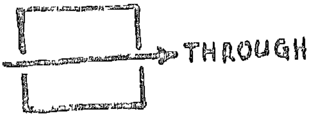












CHARACTERISTICS OF CHILDREN'S ART

Psychologists and educationists agree that the artistic development in a child takes place very early. They indicate that his first experience in art occurs at a time when he begins to make babbling sound. His art then is no more than the dots, marks and the lines as revealed in his finger impressions on the soft ground. But as his motor control becomes capable of holding a thing like a piece of chalk or charcoal he begins to scribble. This development takes place when the child is about two years old. So, even before they start going to school, the children acquire the experience of art activity.

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Lecturer in Fine Arts
NCERT

These scribbles are essentially non-objective and abstract shapes which consist of lines and directional movements. Generally, the shapes are not intelligible unless the child is prompted to explain them verbally. He then, may build up a story about them or may relate them to some familiar objects. He draws them in a spontaneous and direct way in order to reveal his emotional urge. When the child has less urge, his scribbles occupy small area, but when his urge is strong, his arms and hands move over larger area. An essential characteristic of the art of this age-group is that the child's creative enjoyment is always mixed with some movements in the form that he scribbles

A child continues to draw these non-objective forms till he is five. This is called 'manipulative stage' by some writers and 'scribbling stage' by others. A significant fact about the child is that through such acts he tries to establish control over himself, materials and other things. This control which earlier appears loose in his scribbles gradually becomes firmer in course of time. Some educationists feel that scope for art activities should be provided to children at the nursery level, for these help them to develop their manipulative capacity and muscle coordination which are important factors in learning basic skills.

This early phase of artistic development is commonly shared by all the children of this age-group and the upward growth is a continuous process. It is a different matter that some children acquire the basic skill and ability to express idea earlier than others, which is essentially due to the art opportunities available to them.

The next stage of a child's artistic development is called 'pre-symbolic stage' or 'pre-schematic stage' which comes about between five and seven years A child who has been scribbling so far begins to draw definitely by visualized forms with some success. He draws people who are mainly concerned with him, or else he draws himself. The shapes he draws are geometric and abstract in appearance, often simplified to the extent that one can read the intention of the child's mind. A notable characteristic of his drawings is that he draws a circular or oval shape for the head and vertical and horizontal sort of lines for legs and arms. These lines seem to radiate from the circular shape. Children of this age-group seldom draw the trunk of the human figure. The reason is that the torso part of the human body remains hidden under the clothes and children cannot conceptualize this part. Their faculty of observation is as yet quite limited as they consider the human body as having only those parts which attract them through talk and movement. This tendency of children is not only apparent in their drawings, which are on flat surface, but also in the three-dimensional forms they shape out of plasticine or clay. They make separate parts of the human form and then join them together.

It becomes clear from the above that at the age of six plus, when children reach the primary level, they have already been practising art subconsciously. By this time they have acquired more knowledge of their environment, have clearer concepts of many things and have larger vocabulary of art forms. But their creative urge and artistic development suffers a setback when they are asked in school to do copying. If the continuity in their original mode of expression in art is natured through creative art education, they invariably show signs of growth.

The psychological findings point out that 'average' children within the same age-group exhibit similar characteristics in their art. This implies that their growth can be ascertained through their art works and, if need be, the same can be improved upon with special care. Children during the primary grade show three distinct stages of growth. These stages have been established on the basis of characteristics found in their art-expression:

(1) Pre-symbolic stage which continues until seven years of age; (2) symbolic stage which is between seven and nine years of age, and (3) the stage of inceptive realism, which is between nine and eleven years of age.

Although in the beginning the growth rate vary among primary school children because of the environmental factors, they are presumed to be in pre-symbolic stage of artistic development. Their progress is easily noticeable in their art expression. Initially, they base their idea on a single object concept, they now show more objects in their work because of their improved sense of understanding, better observation faculty and more experience. At this stage they start drawing the trunk of human body. They do not compose the shapes like the adults, but spread them over the paper surface. The children of this age-group do not plan their ideas in advance. They work spontaneously and follow the track of their idea. As things go on appearing in their mind, they draw them one by one. They are mainly concerned with the interpretation of their emotions. They now try to show a centre of interest which they emphasize with more details.

Since they have now longer attention span and better manipulative skill, this maturity gives them more drive to carry on their art work. They start using various kinds of material and acquire more skills. Colours, which they lavishly applied for the sake of sheer excitement now show an aesthetic quality in their art. They begin to distinguish the primary and other colours. Some children still like to draw and paint in a non-objective way because of the urge to feel free. At this stage they should have more fresh experiences both of new situations and of new materials. This is desirable for the development of their artistic personality and art-expressions. The children, at this age, have a tendency to repeat their familiar art-forms because they think it is safe to do so. But when they will have new ideas and new materials they will themselves be motivated to use new forms.

The symbolic stage of children's art expression comes during the mid-primary level. By nature, they have become more receptive and more expressive. They have now a keener sense of the relationship between space and sizes. They seek more ideas from their growing consciousness of the world of realities. Since they have also acquired a considerable quantum of knowledge and experience to rely upon, they often feel that the earlier forms and symbols are used up and lifeless, and they invent new symbols which show action and suit their purpose well. In a sense, their art now is more meaningful and impressive because they make a proper scheme to organize a variety of new symbols. At this stage of development, they become more sociable and want to explore new fields in the company of friends.

One of the qualities of children of this age-group is that they evolve their own ways through instinctive powers to express the complex realities of the visible world. Their art is essentially individualistic in expression. Even if a common subject-matter is given to them, each child will express it from his own resources. There are many interesting characteristics in the art of this age-group:

(i) *Proportion* : In their urge to express idea, the children do not bind themselves to visual appearence of the objects and their relative sizes. Rather, they determine their sizes to suit to their emotional and imaginative needs. They make use of three types of proportion :

(*a*) Visual Proportion—This proportion is the natural sizes of objects as they appear to the eyes. Children use this proportion but not too frequently. When they have to show some objects to which they attach equal importance, they try to maintain their size-relationship; (*b*) Emotional Proportion—This proportion is created by the children for showing some emotional significance of the objects. They draw such objects comparatively bigger in size than the rest of them. This should not be taken as distortion or weakness in their art, but a quality that reflects their true feelings; (*c*) Functional Proportion—This is, again, a proportion created by the children for showing the working quality of an object. In drawing such an object, they increase or decrease the size of its working-parts, attempting to show its performance. Children have many ideas in which they want to portray action and they do so with the help of functional proportion to achieve the desired effect.

It is a common practice of children to use these non-visual proportions in an emotional or functional way in order to express their ideas convincingly. They want to give literal meaning to their feelings through visual presentations. This is a quality of their art which is relevant, for it is one of the purposes of art in general.

(2) Space and Dimension—Another characteristic of their art is the use of space. They have by now a clear concept of space-relationship. They see objects not in isolation but, connected with each other through distance and direction. This, they realize, is a three-dimensional idea which have to do on two-dimensional paper. They have, as yet, no knowledge of the perspective because it is an adult's concept. They, therefore, device their own way to represent such ideas.

Realizing that all things exist in space, they arrange them on the paper by maintaining their direction from each other. While they do so, they seldom overlap one shape with the other for fear of concealing some parts of the background shape. They feel that a partial concealment will mean omitting that part of the form. Such objects, they understand, do not exist in reality. When they have to show falling of rain-drops, they avoid showing them in front of the shape. They think these should fall on top of it only. Another feature of their space organization is the perpendicular position of all the figures. They draw them not only separated from each other, but also in upright position. If the number of figures is large, they reduce their sizes in order to accommodate them within the available space. Sometimes the children evolve another way to organize the pictorial space. From their experience they know that all the objects are resting on the ground in vertical position (excepting those in the sky), so they draw a base-line for the ground and arrange their figures standing them side by side. Occasionally, they make a skyline in blue strip and fill this space with objects seen in the sky.

The next phase of children's art expression is called the 'inceptive realism'. This trend in their art becomes evident during 9-11 years of age. Since this period marks the beginning of transition from childhood to adolescence, they show maturity in physical and physiological growth. At this age, they become quite curious about everything and take interest in observing minute details, action and general character of people, animal, and other things. Now, they not only possess relatively deeper knowledge of men and world but also use their reactions and feelings to understand various relationships.

In art, they are sensitive to such elements as colour, line and form which they show through their work. Now, having a longer attention span, a child of this age-group participates in a group project, and solves his own art problem at the same time He no longer works in a spontaneous and direct way. He now plans his work in advance. He considers the adult way of planning the art work a cumbersome one, which is, to make a rough sketch first and finished product later. Instead of this, he gives a serious thought to his idea and imagines its scheme before working with material. An important element in his art at this stage is the appearance of perspective. He begins to realize that people, houses and trees are occupying different plans and there exists a space among them. He sees these plans in the form of foreground, middle-ground and background, and therefore, begins to arrange the forms accordingly. Now he is not confused over the effect of overlapping or which conceals some figures behind the other. Colours, which he had been applying so far for the sake of colouring, now represent the local colours of the objects. He sometimes uses them for interpreting his moods and feelings. The earlier symbols which he used for expressing his ideas, now appear in their natural forms. He finds them too inadequate to represent the reality.

This growing tendency of the child towards realism is due to various influences which now come to affect him. He sees pictures and illustrations in books and magzines which have been done realistically. On the contrary, he sees very little or nothing of abstract or design-based art in his environment. He concludes that realistic form is the only true form of art and this is also the adult's values of art appreciation. He feels that his abstract art has no appeal because he is expected to talk about it in explanation. He thinks it lacks something and that is why elders do not understand it. Under such compulsions, he begins to give up his earlier mode of expression. His interest in other school sujbects is also a factor contributing to his realistic art. A subject-matter from history requires him to make it in factual art form. There are other subjects which call of illustrative quality in the expression. Because the child feels that realistic art is the art of the adult, he becomes inclined to adopt this approach. It may be pointed out that this shift from the non-objective to realistic is not an 'achievement' of the child. He develops this tendency under influences. He needs an effective guidance so that he may retain, build up and improve upon his own mode of art expression. ☐

Why Teaching Aids?

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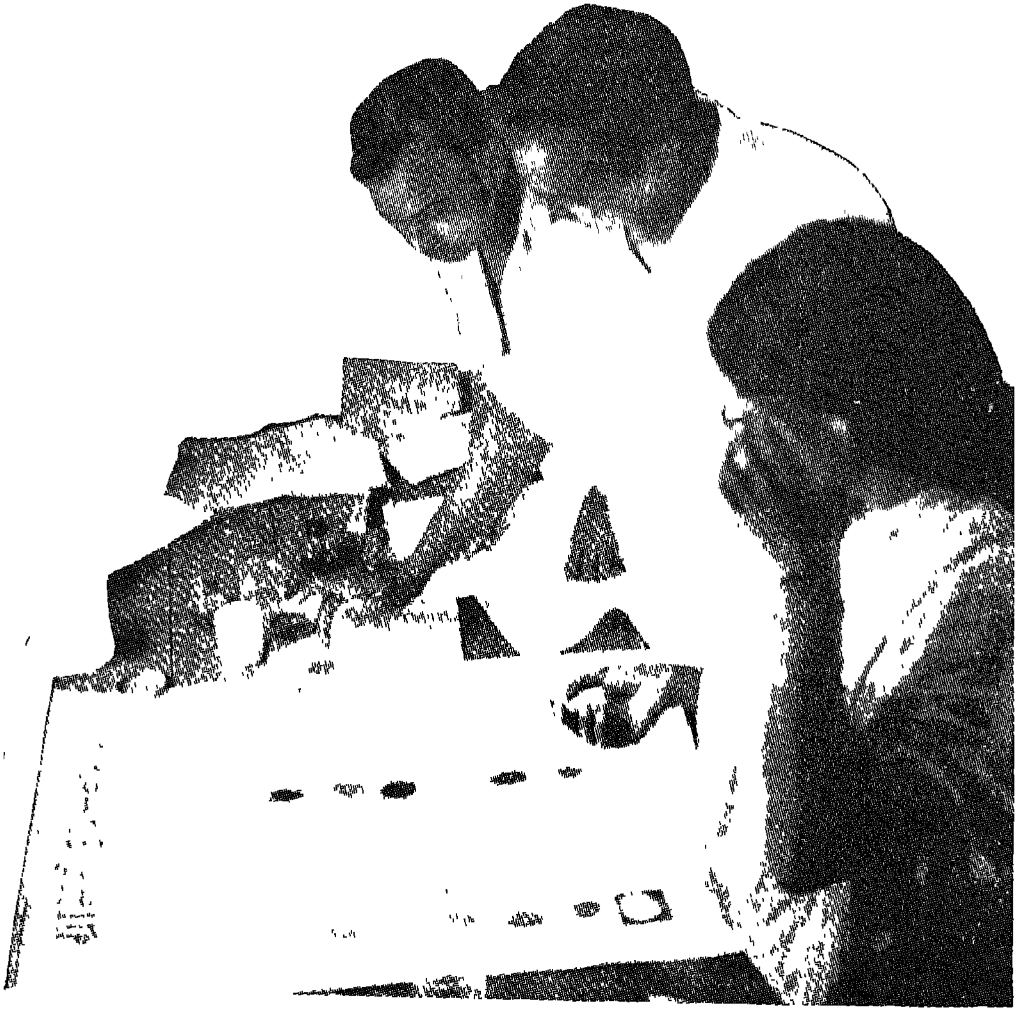


'TEACHING AIDS' is a term which is inadequately understood; it means different things to different persons. To some it means television, films, or charts and posters. Others think they are slides, pictures, maps, clay models, etc. Still others associate the term with the skills of drawing and model-making All these skills and media are in fact used for preparing teaching aids, but the terms do relate to any one of them.

That different meanings are attached to the term 'teaching aids' is quite natural. In our country, diverse socio-economic conditions obtain. Teachers in different parts of the country are not uniformly exposed to the various media. A teacher in a city may have seen television and films but to their counterparts in the villages these sophisticated media are new and unfamiliar.

The teacher may be familiar with the different teaching aids, but it is one thing to be familiar with them and quite another to know the use to which they can be put or to have the skill to prepare a teaching aid.

The objective of this article is to discuss some teaching aids which the teacher may be able to prepare from materials available in the rural environment. For many years to come television, films and slides would be difficult to obtain and use at the rural level. It is, therefore, necessary to focus attention on the teaching aids which can be produced with village resources and used at the rural level.

Production of effective teaching aids is not a simple task. Teaching aids would be effective and meaningful only when the producer of such aids is aware of the following:

(*a*) The value of good teaching;
(*b*) Knowledge of the subject matter;
(*c*) The learning potential of the learners;
(*d*) The basic principles of the content and the process of learning;
(*e*) The relationship of the content with the environment;
(*f*) Local resources, including human resources;
(*g*) Interest in the subject and the learners.

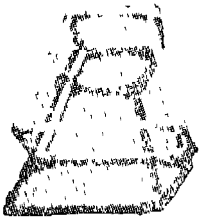
Besides the above point, there are several other aspects which need to be understood in the context of teaching aids. In most schools nearly all the subjects and principles related to them are taught with the emphasis on learning by rote. Before preparing teaching aids it is necessary to understand precisely what it is that the learners do not understand through the book or verbally. Why not take them out of the classroom to make certain concepts clear? There would be no point in making a chart of a peanut plant or a mango tree, when by merely stepping out of the classroom one could show them to the children and tell them the functions of the parts of plants seeds, roots, fruits, etc.

Similarly, many concepts could be explained through simple experiments with objects available in the environment or brought from the house. The concept of pressure of air can be demonstrated with an experiment that just requires a glass, water and a piece of cardboard. Making a chart would be meaningful only when some other aspects of pressure are to be explained which cannot be demonstrated in such a simple way. Working with one's own hands or performing an experiment on one's own is invaluable in the learning process. A Chinese proverb states this point very effectively:

> *When I read, I forget,*
> *When I see, I understand;*
> *But when I do it myself,*
> *I understand.*

Hence, there cannot be a better way to educate children than to have them do experiments meant for their level. To read out a play in the classroom is one thing, but it is more effective to show them the play or have some of them act out the parts. It leaves an indelible impression on their minds. So with experiments. It is indeed difficult for schools to organize experiments which children at the primary level could do themselves. One wonders if this is being done anywhere in the country. In the absence of this, what could be done is to demonstrate or show them simple experiments.

To do all this requires extra efforts by the teacher. To collect different materials and to get models made by local craftsmen may require the development of certain capabilities on the part of the teacher.



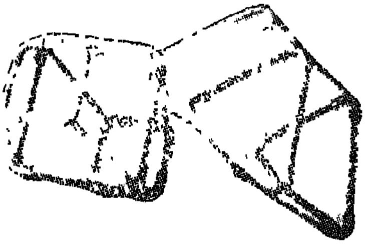
The environment is itself a big laboratory. By taking the children out on excursions, tours and walks, a lot of information can be imparted. This concept is relatively new and its potential has not yet been fully realized. For example, if there is a river nearby, then by going there, showing the children the life around, collecting samples, posing questions and making drawings, a lot of information can be imparted and quick learning can take place. On the other hand, by verbal explanation, or simply by drawing a picture, the learning imparted may not be fully absorbed. Other subjects for on-the-spot study are suggested: water resources, the technology for their use; road traffic and kinds of transporation; the various crafts of the village, products and their uses. Not only can many subjects be taught through such examples but the relationship between a subject and the environment can also be established. Children are fascinated by the environment. It is only a question of planning of studies so that the two are correlated but to do this the teacher would have to work out his own method.

As is well known, teaching aids include books, the blackboard, experiments and excursions. Then there are aids such as charts, models, three-dimensional pictures and games which can make the concept fascinating and learning easy. Many such aids could be designed for learners at various stages. Now let us examine the importance of teaching aids and their relationship with education Teaching aids should relate to the subject and the teaching method. However, very often, while making teaching aids, we tend to lose sight of our goals. In over-emphasizing the technical perfection and finish of an aid, we often forget the dfficulties of the subject or concept and sometimes also the complexities of the teaching-learning process. The colours to be used for the model become more important for the teacher than the content and method of teaching.

Skill and visual appeal sometimes becomes so important that teachers who do not have artistic skills consider themselves inadequate to make teaching aids. There has to be a rationale or logic behind the process of making any teaching aid. It could be stated as follows:

(*a*) The textbook is not the head and fount of all learning; other sources are as important.

(*b*) The understanding of the mental level of the learners;



(*c*) The best way to teach the concept and the various steps involved in it. How should they be sequenced?

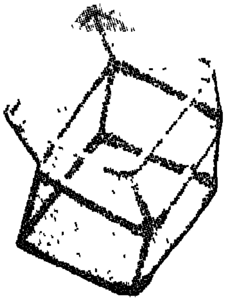
(*d*) The various ways of imparting information in the classroom and outside: verbal, experimental, etc.

When the teacher reaches the conclusion that none of the conventional methods will suffice, only then should he think of preparing an aid. The need of the teaching aid has to be established. Once the rationale becomes clear to the teacher, he may attempt to make one and use it effectively.

The next question is about the type of teaching aid which may be necessary to clarify the concept. Should it be a chart, a model, a picture, a map or a game? After the appropriate medium has been chosen, the question of art or skill comes. D,rawing and colouring a chart or making a working model, demands artistic skill. It has its place in the making of teaching aids but it is not a necessary condition. It would also be misleading to think that:

(*a*) knowing artisticskills alone suffice in making and using a teaching aid, and
(*b*) if the teacher does not know these skills, which most teachers do not, teaching aids cannot be made.

The objective of preparing and using a teaching aid is to improve the teaching-learning process. To fulfill that need, it is essential to understand the basic concepts of teaching and the methodology of teaching. □



National Integration in the Rural Primary School

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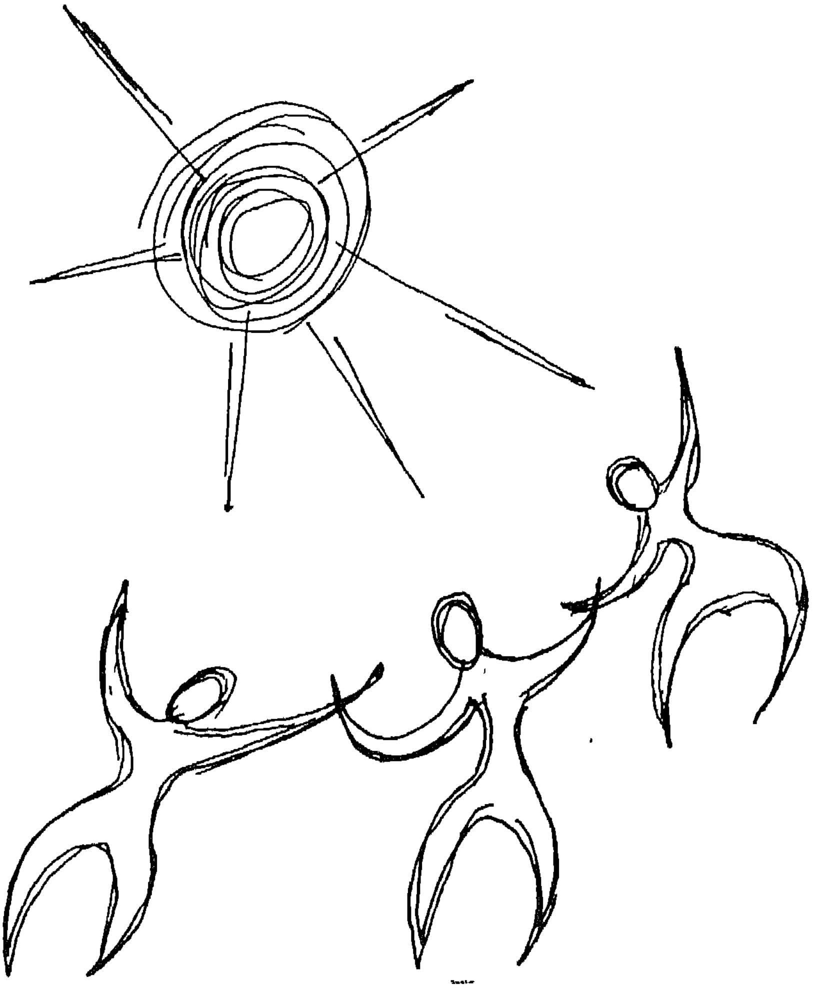
IN THE Education Commission Report (1964-66) it has rightly been observed that "one of the basic objectives of education should be to accelerate the process of social and national integration". The report of the Commission stresses three important aspects as essential pre-conditions of national integration:

a) Confidence in the nation's future
b) Awareness of the obligations of citizenship



c) Mutual understanding and respect for the culture, traditions and ways of life of the different communities of the nation.

Ours is a multi-religious and multi-lingual country; however there is unity in all its diversity. Here, strengthening the forces of social cohesion and national integration should be a major function of education. Special stress should be laid on it at the primary level. At the secondary or university level, attitudes have hardened and are difficult to change. It is at the primary stage that prejudices of all kinds should be eliminated and the foundations of healthy citizenship laid.

Objectives

The need of the time is to stress the concept of one India. It is our duty as teachers to teach our children to give priority to national interests over all other interests. What is to be emphasized is the cultural unity of the country. Unity in diversity is the basic fact of Indian life and culture. We should teach our pupils to strive for a democracy based on social justice and equality of opportunity and to accommodate and adjust in a country of diverse cultures and linguistic groups that have all contributed to our composite national heritage. Ideals of social justice and understanding are to be promoted. Children are to be trained as responsible citizens conscious of their responsibilities towards the society and the nation as a whole. Patriotic feelings are to be promoted and childen are to be taught that when they damage public property the loss is their own. While they are conscious of their rights they should be equally conscious of their duties. This training should be imparted from early childhood. Thus the task of national integration is a big challenge to the educator who aims at helping the future generations to understand the rich components of our national culture and at moulding citizens with a secular and cosmopolitan outlook.

The Child at Primary Level

Our efforts for national integration have till now mainly focussed on adults. Much has been written for college and university students but little has so far been done in this direction for the young children studying in our primary schools, especially the rural primary schools. It cannot be denied that if we were to concentrate on urban students, our message of national integration would reach only five to ten per cent of our young generation. While, if the village schools got our attention, the message would reach almost 95 per cent of our children.

The early years of the child's life are crucial for his growth and development. Habits, attitudes and sentiments are formed and take root firmly in these years. It is, therefore, at this stage that the greatest emphasis should be laid on the formation of right attitudes, right conduct, right way of hinking, broadmindedness, common sense and other qualities necessary for social adjustment and a balanced personality.

As the environment exercises an immense influence on social and moral development, we should create for the child an environment conducive to the growth of healthy attitudes. In this task the parents play a very important role.

The teacher at this stage has a vital role to play; he has to lay down standards of conduct for his young pupils. He alone can provide effective guidance and act as custodian and interpreter of social values. His task is to teach his students the rights and duties of a citizen.

Teaching of History

By interpreting history for his students a teacher can work wonders. Through a secular interpretation of Indian history he can promote a feeling of brotherhood, catholicity and universal toleration. Biased interpretations of certain issues can breed intolerance, mistrust and hatred which are disastrous for national growth. Some controversial issues of our country's history need careful handling. While taking up these issues one has to be cautious. One has to bring home to the child that communal conflict is the product of political and social conditions and has a material base. These issues have to be objectively examined and all the aspects presented to the students. Ill-feeling over past incidents should not be stirred up.

The study of history should enable children to appreciate India's rich cultural heritage and to recognize and get rid of what is undesirable and antiquated, in the social context of today. The schools should see that narrow, sectarian attitudes do not grow in our pupils. It is for them to develop the will and ability in pupils to participate in the task to social reconstruction. A spirit of tolerance and assimilation, respect for the values of humanism, secularism and democracy for social welfare and a just world order are to be promoted.

Exmples from Indian history can be quoted to show that people following different religions lived together in peace, and with mutual respect for each other's faiths. The following examples can be cited for this purpose:

1) Kabir's two mazars at Maghar—one of the Hindu Kabirpanthis and the other of Muslim Kabirpanthis.
2) The pirs and yogis who are respected both by Hindus and Muslims.
3) The village communities, both Hindu and Muslim, which have much in common: their marriage ceremonies, dresses and other aspects of social life.
4) Village festivals, which are celebrated by all irrespective of religion.

As a matter of fact, village life in India illustrates how people of different faiths can live with amity, goodwill and in perfect harmony with each other. There are innumerable examples for the teacher who wants to work for the cause of national integration, to mould the ideas of young boys and girls who are yet passing through their period of character formation

The Mother

Textbooks and teachers certainly play a very significant role in the character development of children, but the mother occupies a special place in the home and her role in the development of the child is no less important. The process of growth starts early. The healthy attitudes essential for a balanced human being can best be cultivated initially by the mother at home—in the pre-school days of the child. Such a uniquely educative role can be played by the mother alone.

It is, therefore, of primary importance that we concentrate our efforts on educating the women in order to attain the desired goal.

School Training

The school can also provide effective training for democracy, equality and brotherhood. Free mixing of the children of all faiths, religions and social classes is the best training for democratic thinking and behaviour. The values of equality, cooperation, and respect for the individual can also be taught and practised in the school. The school can provide opportunities to develop these abilities. A student thus trained feels involved in the welfare of all his countrymen.

Some Suggestions

1) Primary teachers from one part of the country should be enabled to attend programmes and take specialized training in another.

2) Organization of summer courses in different regions of the country.

3) Encouragement should be given to both students and teachers to participate in the festivals of different religious communities, and to study in detail the features common to these festivals.

4) Observation of the marriage ceremonies of different religious communities, laying stress on the features common to different communities.

5) Close contact should be established between the teachers' organizations of different regions and participation in each other's programmes encouraged.

6) Sympathetic understanding of the customs, folk ways, manners and rituals of the different cultures of our country should be promoted.

7) Study of the contributions of different communities and cultures to the development of Indian culture should be encouraged.

8) Mixed hostels for students from different regions in selected schools should be established. ☐

Developing Creativity in Primary Classes

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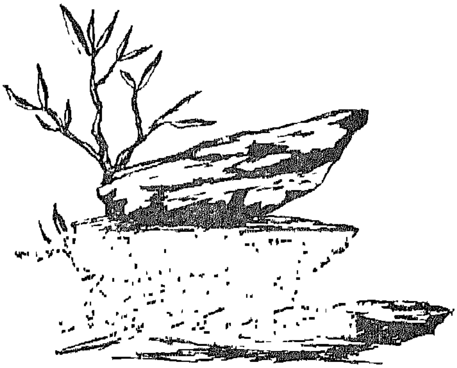

PRIMARY SCHOOL TEACHERS have always the freedom to choose curricular activities under any type of curriculum. These activities develop the children's imagination and creativity. Educators like Guilford, Toorence, etc. have defined creativity and developed tools and techniques for assessing it. According to them an individual, who, on the basis of his knowledge, can develop new activities and thoughts, is a creative man. Creativity is defined by them as the capacity of an individual for mental and developmental activities. These educators have given us the method of factor analysis for evaluating creativity. By this method we may find out how flexible a man's ideas are, his capacity for basic ideas and the clarity of his thought.

The primary teacher has to teach according to the curriculum which comprises languages, mathematics, art, physical education, sports, etc. that involve different types of activities. He has to organize activities in accordance with the needs of his students as also their interests and aspirations. He has to encourage the spirit of enquiry. He has to be innovative and motivate his students. To do this the teacher has to know the environment and the local resources well. By organizing different activities he may provide opportunities for developing the latent potentialities of children. Earnest and continuous efforts on the part of the teacher play an important part in bringing about desired changes in the children in his charge. For instance, in order to help a child think independently the teacher has himself to be an original thinker, Every teacher ought to have a small library in his classroom with books and magazines to suit the interests of the children. The books may be handled by teachers in the junior classes but they could be given to the children in the higher classes. Material from these magazines and newspapers could be used as instructional material and displayed in the classroom. Essays, stories, poems and tit-bits contributed by the children could be displayed along with them. The teacher could read out interesting stories and poems and ask his students to read or write them down. This practice would develop in children the habit of correct pronunciation and writing. They would learn sentence construction, preparing summaries of stories and understanding the central ideas of poems. They could also be asked to prepare scrap books on different subjects. Every teacher may devote one or two days a week to these activities which would help children become creative and constructive. Competitions could also be organized for the students from time to time.

The teacher may also help the students to read newspapers. For instance, he could tell them where to look for news on games and sports, trade, and news of local, national and international importance. The students could also be given practice in writing letters to editors. The end of the school day may be taken up by games, music classes, poetry-reading sessions and other activities The children might do these individually or collectively. In a similar way the teaching of social studies could be made interesting through story-telling, dramatics, etc. Through such a presentation, histroical figures and the great men of science, politics, philosophy, etc. would come alive to the children. The teacher may help his children draw pictures of these great men and women. The working of local panchyats could be explained to them by taking them to places where panchayats are in session. This will give them sufficient knowledge of village administration and their responsibilities in village development. They will also learn about the organizational aspects of panchayats. Guest lectures could be arranged in schools on topics like the freedom movement and other subjects of Indian history. Besides, national days could be celebrated with activities like *shramdan*, tree-plantation, cleaning the school compound, etc. There could be community meals and other group activities. These could gradually be made an integral part of school activities.

It is important for the teacher to tell the students about the geographical situation of their town or village—the district and state it belongs to and the national geography. They should be given knowledge about rivers, mountains, forests, agricultural products etc. Field visits need be organized to give them first-hand knowledge of their immediate geographical environment. They could be helped to develop school gardens and look after them. Besides, they could be asked, to develop their aesthetic tastes by arranging flowers and decorating their school. The students of class IV and V could draw maps of villages, cities and states and prepare albums of such maps.

A lot could be taught about nature and other resources through discussion and field visits. Certain scientific principles could be explained with the help of local resources. Different experiments could be conducted in the class to explain scientific principles. Such activities would develop children's creativity. □

Primary Education in Our Educational System

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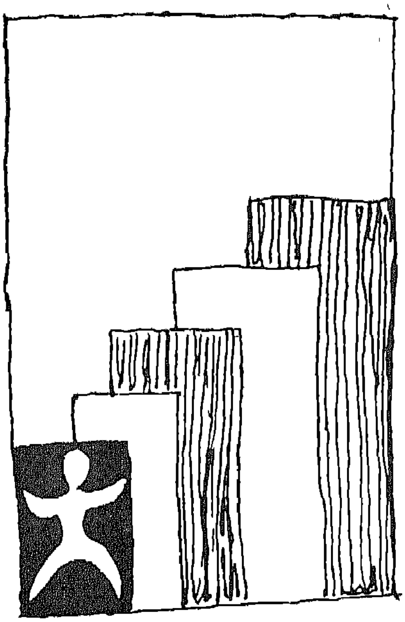

TO SOLVE the problems of education of the country, various commissions were set up in the past. After independence two commissions—the Mudaliar commission (1954-56) and the Kothari commission (1964-66)—were set up. The reports of these commissions raised hopes that the perennial problems of Indian education would be solved. They were fond hopes, however. Perhaps the recommendations were not followed or they were not found to be so practical; the fact remains that the reports did not prove to be very useful. Of course, there was some stir as soon as the reports were out, but after some time no solid results were to be seen and the situation did not improve Educated unemployment has increased. The reason is that the education a young man receives renders him unfit for all but white-collar jobs, which cannot be provided for everybody. In states where the number of educated youths is high, the employment problem is all the more serious. All this proves that the present education system, though it may have increased literacy, has failed to bring about a change in the socio-economical development of the country.

The education that is being imparted to the rural people is proving useless to them. Most of the literate rural youth have been leaving their family vocations and going over to the cities for jobs. There, they work as peons, messengers, watchmen, etc. and start looking down upon their family professions. As a matter of fact, they are rendered unfit to pursue farming and other village occupations that demand hard labour. They are totally cut off from their roots in the villages.

The situation in the cities is no better. There, an over-growing number of schools, colleges and universities produce, every year, educated youths who face the problem of unemployment. Graduates are seen standing in queue for a peon's job. If a post-graduate gets the job of clerk in an office, he considers himself lucky. The standards of universities are falling every day. The degress that they confer on the students have no value for them. Napotism, casteism, bribery, and all manner of corruption operate in the job market.

Education was expected to help in the construction of a healthy society. It was expected to help the economic progress of the country. It was expected to chang the society and produce enlightened people who were fearless, free from all prejudices, who understood their duties as well as rights and were prepared to take up the task of national reconstruction. But unfortunately, education was neglected and never got its due. Had education been given top priority the country would have made good progress by now, which can never be achieved if it goes on being neglected as in the past. It is education that builds the community, and thereby builds the country.

So far as the question of bringing about a change in the structure and type of education is concerned, the 10+2+3 scheme has been introduced by some states. But there are some practical difficulties in the execution of the scheme. Providing vocational education under Socially Useful Productive Work is rather a difficult task. It would require a lot of money and skilled trainers and efforts will have to be made to get children interested in vocational training. It is rather a problem to evaluate the achievement of children. If the industrial concerns do not accept the workers thus trained, it would create yet another problem. But if the scheme is followed in the right spirit, it can yield results. It will provide education and training which would be useful to the country and help in improving its socio-economic conditions.

Providing vocational education under Socially Useful Productive Work is rather a difficult task. ...If the industrial concerns do not accept the workers thus trained, it would create yet another problem.

But a scheme can succeed only when it is executed in the right spirit and its aims and objectives are clear. Education is not imparted merely to make a person literate. It should make him dynamic and free from all prejudices.

Sa Vidya ya Vinumuktaye

Knowledge, in this sanskrit quotation, is defined as an agent that liberates a man from all

The ultimate goal of education is happiness, but happiness can be gained only when a person knows his *dharma*...A sense of duty can develop only when one has acquired knowledge, *vidya*...

bondages and prejudices. Only then can he think freely and discriminate beween right and wrong. Only an educated man can move with the times and discard outdated notions.

Education is a continuous process, as may be seen from a quotation given below:

> *Vidya dadati vinayam, vinayat yati patratam patratue dhanah, dhanat dharma, tatah sukham*

The ultimate goal of education is happiness, but happiness can be gained only when a person knows his duty, i.e. *dharma* and can discriminate between right and wrong. A sense of duty can develop only when one has acquired knowledge, *vidya*, and for this one has to be receptive and humble. This couplet describes the process of education. But all depends on how the process is followed.

In implementing the 10+2 scheme we have to prepare the students for their careers right from the primary stage. Therefore more attention has to be paid to primary education. The following subjects have been proposed for achieving the objectives of primary education.*

1. One language
2. Mathematics
3. Environmental studies (social sciences, nature study and health education)
4. Socially Useful Productive Work
5. Games and creative activities, such as music, dancing and painting.

By teaching these subjects it is expected to realize the aims and objectives of primary education. The first three were taught previously also in similar forms. The fourth and fifth subjects are new. To teach these subjects teachers will have to be oriented. Skilled trainers for various vocations will have to be employed. Funds will have to be provided. If this is not done, school education will be limited to languages, mathematics, and environmental studies and the objectives of primary education will remain unfulfilled To enable the child to do some productive work 'socially useful productive work' has been introduced. 'Games and creative activities' will develop in him healthy attitudes and aesthetic tastes.

It is also necessary that desirable values and habits are inculcated in children along with formal education in the schools.

**Report of the Review Committee on the Curriculum for the Ten year School.* Ministry of Education & Social Welfare, 1977

This can be done through the teaching of languages and environmental studies Therefore, it is necessary to select and prepare the instructional material for these subjects with care.

It has been felt necessary to strengthen primary education. How will this be done? First of all, we will have to define the objectives of primary education and understand their spirit, clearly noting what objective will be achieved by what subject and how it will help the child. The objectives of primary education will guide the instructional objectives of teaching various subjects and will be reflected in the expected behavioural changes of each instructional objective. They must be reflected in the instructional material as well. □

How They are Doing It in Other Countries

OFF THE LEASH

This is yet another experiment in leaving the children free but responsible for their work and play outside the classroom. A disciplinarian of the old school would perhaps be shocked. That is because they still think that children cannot manage their own affairs, or that they do not know what is good for them. There must be an adult to lead them, even in their games.

Fortunately, for all practical purposes, such a view as this is now dead. In the photograph on the facing page, we find elementary school children in New York City enrolled in a programme that combines field-work with academic learning. Look at the youngster with a pair of stethescope, intently listening to the heartbeats of a chick. And just across the table his classmates are absorbed in a game of chess, trying hard to outmanoeuver each other. □

Teachers Write

Development of primary education in tribal areas

A number of steps have been taken to improve education during the post-independence period. The primary education. for instance, has been made compulsory for all children. Today, almost every village with a population between 250 and 300 has a primary school and almost every development block has three to four secondary or higher secondary schools. Yet, we have not been in a position to raise literacy beyond 30 per cent, which includes those who can simply read or write.

However, the literacy rate in the tribal areas is about 5 per cent in comparison with the total of 30 per cent for the whole country.

Hinderances in educational development and means to remove them

1) Most of the tribals in our country are poor. They do not send their children to schools. Instead they make them do some productive work to help raise the income of the family. In the circumstances, it may be useful to give stipends to all tribal children.
2) Few members of this community are literate, as a result they do not understand the importance of education. It is, therefore, necessary that night schools may be opened in all these areas, and steps

be taken to make this programme effective.

3) There is no difference in the curriculum of elementary education for children belonging to tribal and other communities. But there is a lot of difference between the intelligence or mental level of the tribal children and others. Therefore, steps should be taken to prepare special syllabus for tribal children in accordance with their understanding and ability.

4) Curriculum for tribal children should include practical and vocational training, specifically related to their environment.

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Towards a better future in education

It is said that school is the fountain of light for the whole society. Theoretically, it seems to be true but when one thinks of it in the present day context it would appear that it is far from the truth. Indeed, it is a living example of our present society and its environment. Why then this difference in theory and practices? Even after thirty-one years of our independence we are following the same educational pattern which was once started by the British. While addressing meetings and gatherings, leaders and educationists talk about revolution in education, we read stimulating articles by writers and thinkers published in newspapers and magazines but the situation remains much the same. We are not making any progress. What can be the reason? Can only talking bring about a revolution in education?

Being a teacher I also have some bitter experiences of the system. We live in society. Whatever good or bad work is done in society has its impact—directly or indirectly—on us. Our mind becomes active and we try to solve the problem.

Everybody feels that schools must become places of attraction.

At present four types of schools are there in our country. (1) missionary schools, (2) public schools, (3) government schools (urban), and (4) government schools (rural).

As a sample let us consider a secondary school in a rural area. In this school the total number of teachers appointed by the government is nine. It includes science teachers also. Only three small rooms have been allotted for Classes I to VI (new courses). The place to sit and learning materials are almost non-existent. There is nothing to attract the students. No government help has so far been given to the building fund. The school has grown out of the villagers' cooperation. Since it is a government school, social cooperation is not sought and the goverment is not bothered. The expenditure on teachers comes to about thirty-five hundred rupees per month, i.e. forty-two thousand rupees a year, which is in fact, mothing but an attempt to remove some unemployment. Two teachers teaching two subjects to two classes in the same room and that also at the same time is a very difficult situation. In this situation the teacher cannot utilize his training. He feels suffocated. About 70-75 students belonging to two different sections sit on wet and uncemented floor. It is a sad state of affair. One sadly recalls all those theoretical things one learned earlier: this much of space for the students, that they should sit straight and read and that they should not bend, etc. One recalls what one had been taught, that the teachers, in order to draw the attention of the students must make lessons very interesting. But what is the use of it all ?

We talk of revolution in education and ways of removing illiteracy. We start literacy campaigns but the aim of a school is not only to make children literate. Its purpose is also to produce good educated citizens. Is it possible in this system for a teacher to prepare the children for a better and productive lilfe ? Would the children be eager to join such schools ?

The present day students feel suffocated in their schools. They become notorious in their anti-social activities, What is the reason ? Mere bookish knowledge is not useful in life. After completing their studies they keep looking out for jobs. The student who does not solve even a small problem during his student life is suddenly exposed to big problems of life. How strange is this all !

The teacher has a great responsibility but he is not a free agent, He has to take up a particular curriculum already decided for a particular class and has to work under the existing system. So long as everybody in the field of education continues working with a view to getting a job, the situation would remain the same. There is no possibility of a qualitative change in it.

We have to talk about a revolution in education honestly. All of us working in this field must realize the pious idea behind it. We would work not merely as "employed persons" but also as "builders of nation". We have to leave selfishness and should learn to sacrifice. Instead of position and salary, we must fight for a just system. We must fully devote ourselves to this goal. Only then can we make our children good citizens of India.

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Nature of non-formal education

CURRICULUM, content and evaluation are the three basic considerations for a successful programme of adult/non-formal education. But the most important among these is the curriculum. The nature of curriculum for non-formal education depends mainly on what the teachers are expected to do. Teachers giving non-formal education need to be specially trained, both pedagogically and psychologically, to help them take up activities according to situations peculiar to different regions.

If the concept and the meaning, as also the need of non-formal education once become clear to the teacher, he can himself formulate his activities and programmes. Curriculum, in non-formal education, is dependent on situations and tendencies prevalent in a particular society. Obviously, therefore, non-formal curriculum has to be exceedingly flexible so as to involve a variety of methods and techniques on the part of the creative teachers.

The non-formal education curriculum has to be sufficiently practical, keeping in view different sections of people such as farmers, labourers, tribals and the like. The needs and attitudes, tastes and interests of such students are different from one another and the curriculum ought to reflect this variety.

The curriculum of non-formal education has to be essentially problem-oriented suiting different occupations and vocations of the community in question.

Keeping this in view, the curriculum construction for a non-formal situation should consider. (*i*) Content area, (*ii*) main obstructions, (*iii*) subsidiary obstructions, (*iv*) solutions for the problems, (*v*) aims of curriculum in a particular frame of reference, (*vi*) programming of activities towards solving the problems, and (*vii*) emphasis on educational activities based on one's experience.

Instructional material in non-formal education could be of two kinds—the regarding material and the graphic material. Instructional material of whatever type has to be in accordance with the understanding of the group to be taught.

Thus, non-formal curriculum has to be according to the understanding or ability of the adult groups involved. Besides, the style of the instructional material has also to be in consonance with the varying ability of the students. Usually, style is of four kinds—critical, descriptive, story-telling and dramatic. The materials involving story-telling and drama would be suitable for the adults who do no know reading or writing. Descriptive style may be used for those who know a little bit of reading and writing. The critical style, however, may not have any use in adult education. The non-formal education curriculum has also to consider the learning speed of the adult.

SWAROOP PUROHIT ☐

News & Views

Changing priorities in education

INAUGURATING the ninth annual conference of the Board of Secondary Education, held at Chandigarh on 10-12, February, 1978, Dr. P.C. Chunder, Union Minister for Education, said that the priorities would have to be changed with a view to placing emphasis on education on elementary level; for this it was necessary for the States to follow the Centre's guideliness.

The Education Minister said that in the past the emphasis had been on higher education, but for good higher education, one had to have a sound basis. The present difficulties, including the student unrest, were caused by the neglect of education during the earlier stages he said. The education system is at present was "top heavy" and measures were being taken to rectify the faults, he added.

The Planning Commission had been persuaded to set apart 50 per cent of the annual budget in future for elementary education, as against the 32 per cent set aside in the past. The amount to be allocated for adult education would be 10 times greater than before. At present, though the number of pupils studying at various levels was 100 million, including 67 million in elementary classes, about 230 million adults were still illiterate and 65 million children of school-going age did not go to school.

About 60 per cent of those who went to school dropped out after two or three years. Much of the country's illiteracy was caused by a lack of universalization of education and the tendency of students to drop out in higher classes.

The Minister said that the problem to be tackled on "a massive scale" and this was why the Government had decided to educate 100 million adults in five years. It was an ambitious target, especially if one considered that the Soviet Union had educated 40 million adults in 10 years.

In its campaign, the Government had received good response from students, political parties and voluntary agencies. Much had to be done to reorganize the the system of education, he added. The new system would lay stress on the universalization of primary education and adult informal education. □

THE PRIMARY TEACHER

Vol. III No. 4 OCTOBER 1978

The Primary Teacher is a quarterly brought out by the National Council of Educational Research and Training, New Delhi.

The journal intends to give to the practising teachers and concerned administrators authentic information about the educational policies being decided on and pursued at the Central level It aims at giving meaningful and relevant material for direct use in the classroom. It would carry announcements of programmes, courses of study, etc. offered at various centres in India from time to time. It also provides a forum for the discussion of contemporary issues in the field of education.

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3. States round-up.
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I have always had a deep faith in the capacity of education to bring about individual growth and social transformation. Unfortunately, the formal system of education which we have created for ourselves does not serve either of these purposes. On the one hand, it gives wrong education to the upper and middle classes who are its principal beneficiaries. It makes them aliens to their own culture through the adoption of the values and life-styles of a consumption-oriented industrial society. It also converts them into a parasitic class which perpetuates and even intensifies the poverty of the masses. On the other hand, the common people, who mostly remain outside the school system in spite of its huge size and enormous cost, continue to be deprived, not only of education, but also of many other good things of life. The system has thus failed to promote individual growth. It also becomes more of a hindrance than a help to bring about an egalitarian transformation.

JAYA PRAKASH NARAYAN

Editorial

GANDHIJI ON ADULT EDUCATION

THE PRESENT GOVERNMENT has launched a massive adult literacy programme in right earnest. While numerous changes have taken place during the intervening period (1930-78), two things have remained really unchanged. One is poverty and another illiteracy. For a developing country like ours, severe restrictions are operative in the form of money and material resources including trained personnel. Adult literacy programmes have been a great success in the socialist countries like the USSR, Red China and Cuba, etc. In free democracies, because of historical reasons, such programmes were necessary and where necessary they had the wherewithals of making it a success. The latest reported figures for the USA are a little disturbing. A sizable section of their society is fuctionally illiterate despite the fact that these persons have had some kind of formal schooling.

Adult literacy programmes probably do not get the desired result because either 'literacy' means nothing to the prospective literates or there are no means of sustaining the levels of literacy once attained. In other words, either the 'literacy' programme is not purposive or where purposive it is not supported by an ancillary service which should prevent the adults from 'relapsing' into the state of illiteracy.

Long back, Gandhiji had pinpointed both these problems. He was a wise man and he could well imagine where the programmes generally go wrong. We are citing the relevant extracts from his writings under a separate title in this issue. One could read them with interest and foresight. Gandhiji pleaded with the people to organize meaningful "Anniversaries" wherein young and old, poor and rich, voluntary and government agencies could collaborate to destroy pests and other harmful things. Such an organization, if came into being could well work as an educational agency for a "true adult literacy" programme. He also wanted that people should be made literate and that 'these literates' should be prevented from relapsing into illiteracy. By saying so Gandhiji—a pragmatic man—had touched upon the real weakness of this programme. Being a true democrat he wanted voluntary agencies also to participate in this joint endeavour.

Lest we should commit similar mistakes an early decision on the preventive measures should be taken in advance. ☐

Nature of Adult Education

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PROVERBS LIKE "He is too old to learn" offer a great deal of challenge to adult education. This is contrary to the modern concept of education where learning is treated essentially as a life-long process. Besides, certain experiments on learning now prove that the power to learn does not suffer because of aging.

According to Mahatma Gandhi the uneducated Indian farmer is in fact a truly educated man and those who have attended schools and universities are, on the contrary, the uneducated masses. He believed that persons who have studied agriculture are rather unfit to be real farmers. Gandhiji treated illiteracy as a quality of ignorance. According to him, the uneducated villager gets a great deal of real education through his experiences, from the clouds, from the birds, and animals, from the society and from other things that belong to Nature. He also learns through the important mass media like radio, TV, cinema, etc. The greatest fact that proves that our villagers are not illiterate is election. It is, therefore, wrong to term them as uneducated merely because of their being illiterate. The purpose of adult education is to enable the adult to read, write and help himself in everyday life.

The major finding of the adult education agencies today is that the adults lack motivation, particularly for learning the alphabet. They refer to situations where about fifty adults joined a class to begin with, but most of them dropped out long before the end of the course. Gandhiji believed that an adult could be taught history and geography through question-answer method. They could also be given the knowledge of letters if we could provide blackboards in the classroom.

In short, adult education does not mean mere literacy, though literacy can be one of its means. It includes all those experiences which the adult men and women gain to improve their capability, expertise, interests and values.

The adults could be divided into three groups : the first lays emphasis on the theoretical and bookish knowledge, the second is concerned with solving their day-to-day problems; and the third is least interested in a thinking process, but is interested in learning through experience. The main objective of adult education ought to help adults develop their interests and aptitude and also to help them find out ways and means that could solve their day-to-day professional problems.

Adult education is generally organized in two ways :

(1) classroom system, and (2) propaganda media. The techniques useful in a classroom situation

are given below.

(*i*) *Look-and-Say Technique* : It seeks to establish symbolic relationship between figures, letters and the environment. For instance, the English letter 'O', when spoken, indicates the same shape of lips. Similarly, Hindi letter 'अ' looks like an Indian *Chulaha* and 'र' like rope, *matras* appear like the horns of a bull.

(*ii*) *Story-Telling Method* : Story-telling method can also be used in adult education. Through this method the knowledge of basic words and the techniques of developing a story can be taught.

(*iii*) *Word-Picture Technique* : Letters and words written under a picture would impart knowledge of different words and sentences to the adult.

(*iv*) *Using the letters of similar shape*.

(*v*) *Teaching letters in parts* : This method is used particularly in teaching and learning the Bengali alphabet. It involves learning letters by breaking them into parts and then rejoining different parts to make letters. This technique helps the learner write before he can learn to speak.

School curriculum cannot be useful for adult education. Adults, particularly belonging to rural areas, face three basic problems of securing bread, clothing and housing. Any adult education programme has to take an account of these problems. Besides, they have other problems like poverty and ill-health which have also to be looked into. These people should be made to understand the 'why' of problems, particularly those created by themselves. It is generally observed that farmers sell the best of their agricultural products and keep some sub-standard products for their own consumption. His main motive is to earn money by selling the best of his produce even at the cost of his own health. The villager is also to be educated about the type of food he eats and the kind of water he drinks. He has also to be taught to develop the habit of cleanliness, personal as well as environmental. In a way, they have to be taught on the ways and means of raising their standard of living.

As already stated above, illiteracy is a great hinderance to national development. It is a major cause of the backwardness of our villages. Not only in villages but certain categories of people like labourers in cities and small towns are also illiterate. In order to remove illiteracy from the villages and cities, it would be necessary to adopt different methods to motivate. A village adult can take a lot of interest in problems related to agriculture and allied problems, while he may not pay any attention to problems related to factory workers. Thus, when we talk to labourers, we should talk about their duty hours rest period, daily wages, etc. But discussion on these things would be of no use to the farmers. For them, we have to talk about agricultural equipment and similar other things they are acquainted with.

It will not be out of place here to mention that the teacher's role in this task is of utmost importance. The teacher has to create a congenial atmosphere for adult education. However, it is too great a responsibility to be borne by the teacher alone. He may involve college students and others in this task. The educated unemployed could also extend their helping hand.

There is no rigid method that can be applied in adult education. The methods and techniques have to change as the situation demands. Sometimes the teacher might adopt the discussion method, at others, he could adopt the story-telling approach and thus create an interest among the adult population.

The knowledge of alphabet is extremely useful. For instance, with his knowledge of alphabet he could learn how to fill in a money-order form or how to contact government authorities. The total approach of adult education, should therefore be to help the adults become efficient in solving their day-to-day problems. □

Nature of Indian Education

EXCERPTS FROM 'TRUE EDUCATION'

M. K. GANDHI

"IF MY VOICE can have any influence with the universities, I would beg them, so long as our present economic inefficiency continues, to restrict admissions to literacy and theoretical courses and induce the student population to cover degrees in agriculture, engineering, technology and commerce.

Whilst Sir M. Vishveshvarayya has emphasized one grave defect of our present education which places exclusive emphasis on literary merit, I would add a graver defect in that students are made to think that whilst they are pursuing their literary studies, they may not do acts of service at the sacrifice of their studies, be it ever so small or temporary. They will lose nothing and gain much if they would suspend their education, literary or industrial, in order to do relief work, such as is being done by some of them in Gujarat. The end of all education should surely be service, and if a student gets an opportunity of rendering service even whilst he is studying, he should consider it as a rare opportunity and treat it not really as a suspension of his education but rather its complement. I, therefore, heartily welcome the idea of the students of the Gujarat National College extending their works of service beyond the confines of Gujarat. I remarked only the other day that we must not become narrowly provincial. Sindh is not so well organized for producing an army of relief workers as Gujarat is. It is therefore expected of Gujarat to send volunteers to Sindh or any other province wherever their services can be utilized. And, after all, Gujarat in general and Gujarat national students in particular, owe a debt to Sindh in that she sent, in the course of the non-cooperation movement, three distinguished educationists—Acharya Gidwani, Acharya Kripalani and Adhyapak Malkani. If therefore Gujarat students will go to Sindh, they will do nothing but a simple duty.

The response received by Gujarat to the appeal for help in her distress has been most gratifying. Among the early helpers were two institutions that I should like to mention, Gurukul Kangri and Shantiniketan, and knowing how their gifts will delight my hearth they even sent telegrams to me advising me of their donations, which were sent directly to Sjt. Vallabhbhai Patel. Acharya Ramadevji sends me particulars regarding the four instalments sent on behalf of the Gurukul. He tells me that even more may be expected, and adds:

> The teachers have paid a percentage from their salaries, the Brahmacharis have saved money by washing their own clothes instead of having them washed by *dhobis* as is done usually and the *Brahmacharinis* of the girls' school have saved money by giving up *ghee* and milk for one meal.

Let those in Gujarat who are receiving relief and who are distributing relief, remember what self-denial lies behind some of the donations received. The present self-denial of the Gurukul boys and girls reminds me of the practice of self-denial, first inaugurated by the late Swami Shraddhanandji when he was the head of the Gurukul, for helping our countrymen in South Africa during Satyagraha there. Such acts of self-sacrifice are therefore what one would always expect on given occasions from boys and girls brought up in the traditions of the Gurukul."

Young India, 13-10-1927

Social Education

"The problem of social education or education for the people is even more difficult than that of children's education For the latter, we have examples of how it has been carried out. But for the education of our masses, we may say that not even that much guidance is available to us. In this respect, we can learn only a little even from foreign countries. Conditions in India are also different from those in other countries.

At present, our ideas of religion and our ways of living it have grown very weak. Besides, there are frequent strifes as a result of the multiplicity of religions in our land. There cannot be the same type of education for all—Hindus, Muslims, Parsis, Christians, etc.

For example, we cannot put forward the same arguments with regard to cow-protection to the muslims as we can to the Hindus. And yet we have to educate both about the evils of strife between the Hindus and Muslims.

Social reform work is a huge and very difficult task. Each community has its own peculiar characteristics; each suffers from the existence of sub-castes. Let no-one think that there are no sub-castes among Muslims or Christians. The Hindus have infected all communities with this evil.

Health, hygiene and politics are the only subjects which can be imparted to all alike. I include knowledge of economics in politics.

Here in India, politics and the science of health are closely related to religion, strange as this may seem. For instance, not all those belonging to different religions look on politics in the same manner. There too, consideration of religious sentiments becomes inevitable in deciding about the treatment of diseases. Those who are engaged in the task of imparting education to the people can not advise beef-tea to all for recuperation after illness. Nor can they convince Muslims of the advisability of following the rules of hygiene in the matter of drinking water.

Under the circumstances, what should be the starting point and what the range and outer limits of a scheme of social education? Social education, which is nothing less than the education of the entire people, does not mean starting a night school and teaching the alphabet to tired labourers.

What is a teacher, engaged in the task of social education, to do then?

At the moment, I can think of only two ways open to him: First, he should settle down in a village, mix up with the people there and serve them. To the extent that he serves the people, he will also be educating them. The other is that simple books useful for educating the people should be prepared and brought out at a low cost, and a campaign should be started for spreading them among the people. Those who are interested in the work should be encouraged to read out these books to groups of illiterate people and gradually this should become an established practice.

If this conception of people's education is correct, the first thing we should do, should be to train the right kind of teachers. People have no notion as yet of what exactly social education is. The Congress has done something in this sphere, though indirectly. But it has not done it from the point of view of the teacher who should aim at building up character. The politician is interested mainly in political education—in Swaraj. He feels that general education of the masses will come as a matter of course after the attainment of Swaraj. The teacher, on the other hand, contends—you will get Swaraj only if you have character. We have before us at present only the educational view-point. The politician may succeed in his purpose even though he lacks character, but a people's teacher cannot do without character. If he lacks it he will be like salt without its savour.

It is no use writing more about this subject."

Adult Literacy

"The Gandhi Mission Society, Tiruvennainallure, sent me their half-yearly report of adult literacy work. The total number of adults educated was 197. But the problem that really they face is 'how to enable the adults to retain the knowledge thus gained' ! The report goes on : "Nearly half the members who attended the classes during the first session have approached the worker in-charge to repeat the lessons. In fact they had lapsed into illiteracy. The workers are racking their brains to devise means to prevent this lapse". The workers need not rack their brains at all. The lapse is bound to occur after the short courses that are given. The lapse can only be prevented by correlating the teaching to the villagers' daily wants. The dry knowledge of three R's is not even now, it can never be, a permanent part of the villagers' life. They must have knowledge given to them which they should use daily. It must not be thrust upon them. They should have the appetite for it. What they have today is something they neither want nor appreciate. Give the villagers village arithmetic, village geography, village history, and the literary knowledge that they must use daily, i.e. reading and writing letters, etc. They will treasure such knowlege and pass on to the other stages. They have no use for books which give them nothing of daily use."

Harijan, 22-6-1940

True Adult Education

"Of all the numerous letters and telegrams received for the *Charkha Jayanti*, a letter in Hindustani received from the Indore Adult Education Association most arrested my attention. The purport of it is that the Association in question, instead of wasting time in performing some flattering function, devoted the jayanti week to doing urgent and useful work, i.e. young and old, rich and poor, official and non-official bonded together in destroying a noxious weed, harmful to man and beast. If such cooperation became the abiding feature of any locality, it would constitute the best education for young and old and change the face of the society in which it was done"

Harijan, 26-10-1947

Village Education

"Kakasaheb has several objects in his view in starting this supplement to *Navajivan*. One of them is to use it as a medium to provide some of the essentials of education to about ten thousand or so of the villagers of Gujarat who have passed the generally accepted age for starting to learn, to read and write at school, and who are living the life of householders, while being engaged in different vocations for earning their livelihood. We should place on this education which we want to impart to the villager—a more liberal interpretation than is being done at present. This education should be much more than a mere knowledge of reading and writing. The villagers are ignorant of many things of great practical value, and they also suffer from a number of silly superstitions. Kakasaheb desires to remove these superstitions and impart useful knowledge to our peasants through the medium of this supplement.

The conditions in villages from the point of view of health are deplorable. The absence of necessary, and quite easily available, knowledge of health is one of the potent reasons of our poverty. If the health of our people in the village could be improved thousands of rupees would be saved, and to that extent an amelioration in the economic conditions of our people brought about. It is evident that a peasant suffering from ill health cannot put in as much work as one who is healthy. The death-rate in our country is much higher then it should be. The loss thus caused is by no means negligible.

It is said that the reasons for the grievous condition of our health lies in our poverty and that if poverty could be removed our health would automatically improve. One may well say if one wishes to discredit the Government or fix the entire responsibility for all our sufferings on its head. However, this statement contains less than half the truth. In my opinion, which is based on experience, our poverty plays only a very small part in the poor state of our health. There are other factors, but I shall not go into them here.

One of the aims of this series of articles is to suggest ways and means whereby we can eradicate some of the diseases which are easy to combat, and which have been brought about by our ignorance and faulty habits.

Let us look at the conditions in our villages from this standpoint. Most of them look like refuse heaps. People have no sense either of decency or senitation. They ease themselves without any regard for the place where they do so and foul even their own courtyards. And then they do not cover the excreta or urine with earth. The streets in the villages are never clean and are seen dotted with heaps of earth and rubbish. This makes it difficult for both humans and bullocks to use them. Where there are tanks, the water of the tanks is misused. They wash their utensils and clothes in them; they are used for bathing both by men and cattle. The old and young use the water from the tank for cleaning themselves after evacuation on the land close by Still worse is the fact that this water is used for drinking and cooking purposes as well !!

Houses are built without any plan. They neither think of the possible inconvenience it may cause the neighbours nor whether the occupants of the house will get sufficient air and light.

Owing to the absence of cooperation among villagers, they do not know even the essentials of food necessary for health. They do not make good use of their leisure, hence their physical and mental growth is not satisfactory.

Because of their ignorance of the laws of health, the villagers, instead of treating the disease when they fall sick, resort to witch doctors, and thus invite more trouble on themselves. They spend money but prolong and aggravate the disease.

It is proposed that we deal with all these factors—responsible for the wretched conditions in which the villagers live—and suggest ways to get rid of them."

Harijan, 18-8-1929

II

Fear Complex

"The fact is that villagers have lost all hope. They suspect that every stranger's hand is at their throats and that he goes to them only to exploit them. Divorce between intellect and labour has paralyzed their thinking faculty. They do not use their working hours to the best advantage. The worker should enter such villages full of love and hope, feeling sure that where men and women labour unintelligently and remain unemployed half the year round, he, working all the year round and combining labour with intelligence cannot fail to win the confidence of the villagers and earn his living honestly and well by labouring in their midst.

'But what about my children and their education?' says the candidate worker. If the children are to receive their education after the modern style, I can give no useful guidance. If it be deemed enough to make them healthy, sinewy, honest, intelligent villagers any day able to earn their livelihood in the home of their parents adoption, they will have their all-round education under the parental roof and withal they will be partly earning members of the family from the moment they reach the years of understanding and are able to use their hands and feet in a methodical manner. There is no school equal to a decent home and no teachers equal to honest virtuous parents. Modern high school education is a dead weight on the villagers. Their children will never be able to get it, and thank God they will never miss it if they have the training of the decent home. If the village worker is not a decent man or woman, capable of conducting a decent home, he or she had better not aspire after the high privilege and honour of becoming a village worker."

Harijan, 23-12-1935

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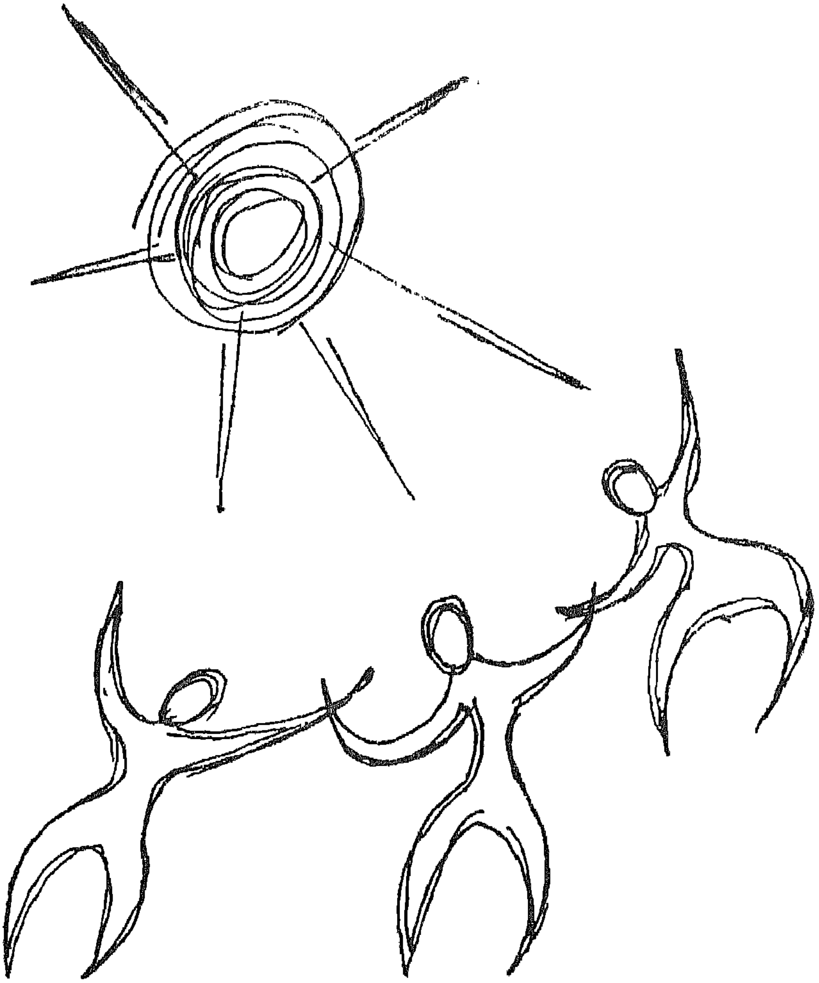
*This series of articles has been published in book-form in Gujarati under the name of *Gamadani Vahare*.



Change in the Children

One of the important objectives of primary education is "to acquire a rudimentary knowledge of reading, writing and arithmetic and the appropriate skills". This forms a very broad objective of primary education as recommended by various curriculum committees from time to time. The primary schools have been teaching a number of subjects in order to achieve this objective, viz. language, arithmetic, social-studies, science, etc. but the main stress has been on teaching the three R's as recommended in the above objective. After passing the primary, the children do get some knowledge of the three R's and other subjects they read. Most of them, particularly in the rural areas, leave the school after this and only a few of them join the secondary classes to continue their education. In view of this state of affairs, there arises a series of important questions : Is this all we are aiming at ? Is the knowledge of the three R's and some relevant subjects sufficient for the development of the child ? Is it all we want the child to become ? Don't we want him to gain more than this ?

Of course we want him to gain something more than this. But we never try for that. We never try because we give all importance to the teaching of various subjects only and do not go beyond it. We want to develop in the children healthy and desirable attitudes. We want them to gain some idea of the values to be cherished and also of the culture of the country. But we never plan for it, rather we never care for it.

What are the healthy and desirable attitudes that we want to develop in our children? What are the values to be cherished by the children to make their lives sublime ? What are the various aspects of our cultural heritage that we want to introduce to our children ? This needs some discussion in details.

G.D. SHARMA
P.C.D.C., NCERT

Education is meant to develop in the child certain behaviours that make him readily acceptable in the family and society. He should keep himself and his surroundings clean. He should be punctual and know the value of time. He should understand the dignity of labour, be ready to help others in need. He should remain true to his word and mean what he says. He should be fearless and patient in adverse circumstances. He should show tolerance and respect to others. He should feel the difficulties of others and should not become self-centred caring for his needs and comforts only.

Ours is a democratic country granting liberty, equality and justice to all. We are committed to secularism, that is respect for all religions. Therefore, we want to develop in the child the qualities of good citizenship, to enable him to play his role effectivly as a citizen of a democratic socialistic welfare state and to make him realise the basic unity of the country in its apparent diversity and also the oneness of the world. He should develop free and objective thinking and possess a progressive outlook.

Truth and non-violence are the soul of our culture. Our culture shows great consideration for other peoples and societies. It advocates that the world is to be treated as one family. We would therefore like the child to be generous both in his thinking and action. He should be above all petty distinctions of caste, community and creed. Our culture cares more for spiritual values than for materialism, and, since this is the age of materialism, we have to maintain a balance between the two.

In short, the following values are to be inculcated in the children through education :

1. Cleanliness
2. Punctuality
3. Help and cooperation
4. Sportsmanship
5. Tolerance, sympathy and respect
6. Honesty
7. Love and friendship
8. Patience
9. Courage
10. A spirit of cooperation
11. Straightforwardness
12. Faith in humanity
13. Respect for labour
14. Self-respect
15. Leadership
16. Truthfulness
17. Non-violence

Needless to say, these values are very important to develop the personality of the child. It is not the knowledge of the three R's and/or any other higher academic achievement that makes him educated, that would make him a real educated person. If the child is limited to himself and does not rise over the petty self-love in day-to-day living, then his education, however high it may be, is simply a waste. At best he can be called a *literate* but not *educated.*

So, we are interested in the children's attitudes and values. But how to do this ? How to do it through teaching ? What role can educational planners play in this regard ? What can a curriculum expert do ? What can a textbook writer do ? What can a teacher do ? It is time these questions are answered.

So far as the curriculum is concerned, this is taken care of in the general objectives of education as well as in the instructional objectives for teaching a particular subject. A good curriculum always recommends inculcation of healthy attitudes and desirable values according to the mental maturity of the child. But this is not enough. Recommendation is very different from execution. It is the teacher who does this job, because he is the key person in the school to excute the recomendations of the curriculum. Again the responsibility of teaching the values and inculcating good habits and attitudes falls more on the teachers. But teachers of arithmatic and science have less scope of teaching values because of the different nature of their subjects.

A teacher, however, is supposed to be competent enough to teach a subject even without any textbooks. But now that textbooks are considered potential tools of teaching, the textbook writer also comes in the picture as a responsible person to infuse and introduce different values in the textbooks. But values should not be taught through sermonization. The children should rather be made to infer the required value from a lesson. A writer of language textbooks can do a lot in this regard. He can introduce different values in each lesson he is writing. He can stimulate the children in thinking objectively and developing a scientific attitude towards life. It is through his art of presenting a lesson that he can mould the attitude of the children. If the content is suitable enough to highlight certain values, the teacher can make use of this. Language teaching is mostly the teaching of behaviour in different situations and teaching of behaviour is nothing but the teaching of values.

Besides the language teacher, the teachers of social science and art education can also teach the children a set of social values. The art teacher can develop their aesthetic sense and love for nature. The teachers of mathematics and science can help them in developing an analytical attitude which will keep them away from prejudices and dogmas.

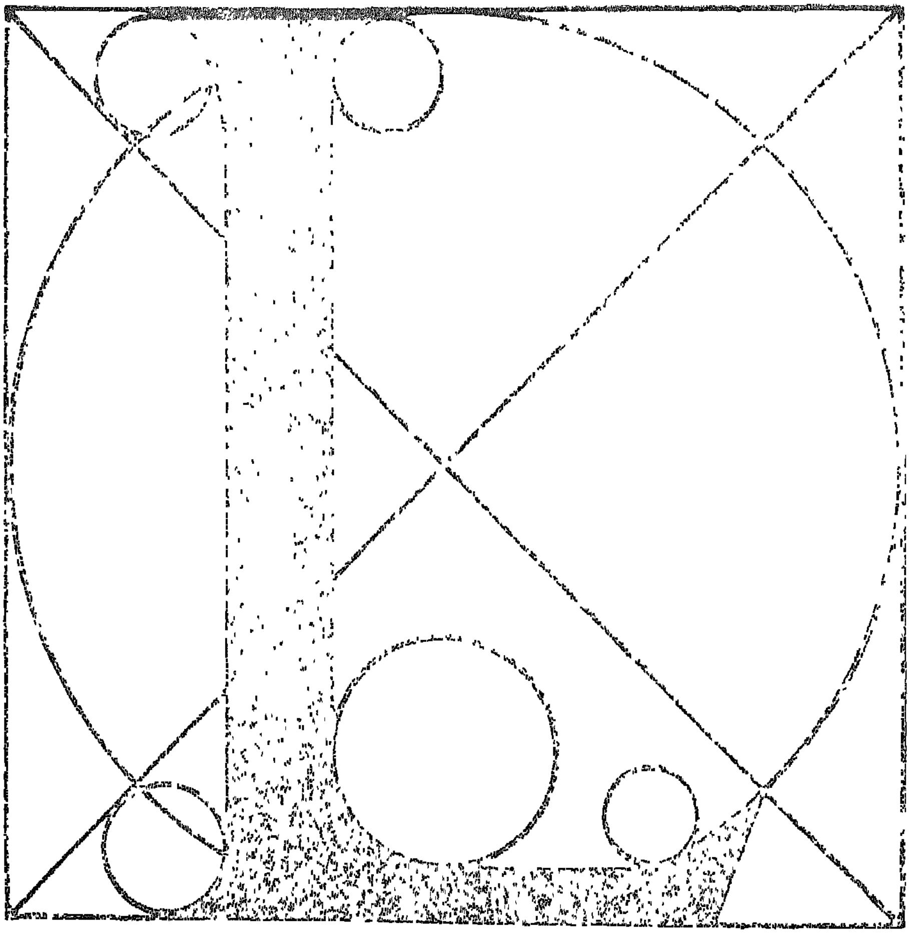
The teacher must bear in mind that education is not limited to the teaching of subjects only. He is there to prepare the child to behave as a useful member of the community and a good citizen of the country. And, for this he has to teach certain values keeping in view the level of mental maturity of the child. Otherwise, the child will become a self-centred person, caring more for his personal gains and comforts even at the cost of others.

In spite of all their prosperity and wisdom, the West is suffering from self-centred and alienated existence. Wealth of course, has provided a lot of comforts, but has failed to give them real happiness. This happiness can be achieved only through love, service, non-violence, and sacrifice. In conclusion, we have to care more for what we are going to make of the pupil than what subjects we are going to teach him. ☐

School Libraries

MOHAMMAD RAZIUDDIN MUAZZAM

THE LIBRARY MOVEMENT has awakened a real interest in the organization, study and effective use of books in libraries. The educationists in particular, have come to recognize the necessity of having libraries in schools. Now almost every school has a library of its own. Even if it is small, it is considered to be of paramount importance both to the teacher and the taught. It is important to the teacher for immediate reference work, and to the taught because of its recreational and educational potential. But with this early



recognition, the practical aspects of organization, and hence the best use of books, have not found their way into actual practice. Besides, between the two educational demands—the rigid follow-up of the curriculum on the teaching side and the ingrained examination fetish persisting among the students, school libraries have continued to remain a collection of books—a repository of neglected treasure. Perhaps a library in a school is only known by the story-books it issues out to the students.

There is, in the first place, a distinct failure on the part of the librarian and the teaching-staff to create an interest in the reading of books not included in syllabi and to continue to stimulate their students. In this context, the school librarian has to be a multiple personality. He is a combination of clerk and drawing teacher, and perhaps a part-time teacher too. The widespread notion that anyone can be a librarian is fallacious. Though librarians, like poets, are not made but born, yet people can be trained in the science of librarianship. A librarian must be a duly qualified and trained hand like any subject-teacher who is trained in the technique of teaching his subject.

Secondly, our present educational system is dominated by examinations, and successful teaching is made synonymous with the rigid adherence to the syllabi and strict application to the textbooks prescribed. This

is an unfortunate, and, at the same time, a very queer feature of 'teaching', and consequently, students never go out of the beaten track of depending solely on the prescribed portions of their textbooks. Hence books in school libraries remain a sort of 'prescribed literature'.

Thirdly, its situation in the school premises needs attention. To convert any room without an inviting appearance into a library is the last thing which the aesthetic sense, even of a child, can tolerate.

A separate room, if not a building, should be set apart in a prominent place in the school premises, so that students can feel its inviting presence and have an easy access to it. Let the librarian group all books into two main classes, namely, one meant for the teachers, usually books on the technique of teaching and of an

advanced nature which may come under this head; and the other, for the students. The latter must include books of all descriptions; for instance, story-books, and 'things to make and do books', which are calculated to rouse their interest as 'practical workers' in the making and doing of things.

Reference books, for example, encyclopaedias and dictionaries, etc. must be carefully separated and formed into a 'reference section'. Books in each division are to be classified and the system should be made easily workable. Guide-boards, indicators and library slogans must be used to arrest the students' attention. In a word, the whole library should present an inviting appearance.

Attached to the library a small reading-room is to be maintained. Newspapers, magazines, pictorials and journals which cater to the juvenile taste should be subscribed for. Above all, the librarian should be a model of courtesy and kindness, and be ever prepared to lend his helping hand to those who need it.

How the teaching-staff can help

(1) Let teachers, with the consent of the principal or head of the institution, include a library-hour in the school time-table for each class. This hour must be utilized in giving 'popular talks' on books; on their use, the value of such a study, etc. The librarian can well discharge this duty. But where the librarian stops, the subject-teachers should begin. For instance, 'English teachers' must teach the use of reference materials besides giving an idea of how to use books of 'utility'.

(2) A general knowledge class must be held every week, when questions previously thought of and books consulted may be discussed, mostly by the students.

(3) Debates should be held on topics of general interest at frequent intervals during each term.

(4) Essay writing competitions must be given their due share in this scheme.

(5) A prize should be awarded at the end of the year for the best 'tiny research' carried out

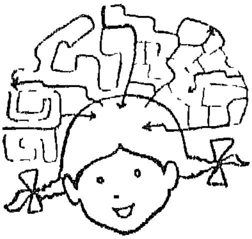
and a short 'original thesis' written by any student on some topic chosen by the teacher.

(6) Students should be encouraged to bring out a magazine wherein they can best utilize their literary talents.

The librarian, in cooperation with the teachers, must render all possible help to the students in using the books or reference material to unearth matter for items covered by (2) to (6) mentioned above. It other words, the student clientele must have free access to books, while the librarian or teacher will act as a 'guide', in giving them the right help at the right time.

(7) In the teachers' training colleges, adequate instructions may be given so as to equip the trainees as good librarians.

With this scheme made to fit into the school machinery, plus a judicious elasticity in carrying it out, there is little doubt that a larger percentage of students will make a proper use of books in school libraries. Independent thinking, while taking root, will lend them a second sight to unravel the mysteries which lie on the borderland of 'research'. Leisure will no more mean boredom, but hours 'wasted' profitably, and these in their turn will keep up their learning zeal. And by the time they leave the school, they will have formed a healthy reading habit, which, if continued, may enable them to become men of culture and calibre. ☐



Environment and Elementary Education

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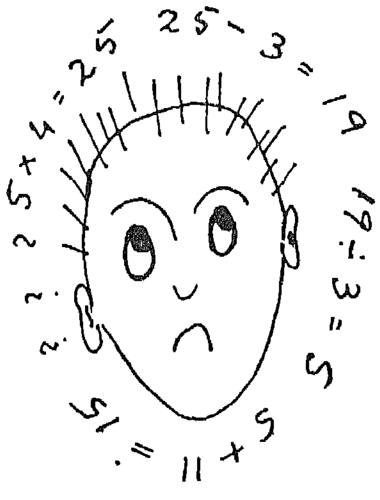

IN OUR COUNTRY elementary education is the first necessity, and so the elementary schools are faced with a task of teaching more concepts today than ever before. It is the responsibility of the schools to prepare youth for the world tomorrow. Elementary teachers who already face a heavy curriculum naturally resist the additional work load.

The citizens of the future should have a liberal education with extensive scientific concepts and principles. More population means the fewer raw materials for more people to use. The increasing demands will require a more sophisticated technology with more inventive minds at work. Conservation has to become a way of life. We have to make aware each and every individual of the responsibility he has towards the environment we are living in. As responsibility has two faces of freedom, individual and social, we must not see it as an opposite of freedom but rather as necessary companion. Responsibility need not be looked upon as an unpleasant burden—a price grudgingly paid for freedom.

Increased population and technology require a mind more adjustable and more tolerant to change. The mind of the future must be prepared for rapid adjustments. Science programmes should help children to achieve a sense of the dynamics of change. All this has to be achieved in schools, and elementry schools must carry its share of responsibility. As their is an accelerted growth of scientific knowledge and its influence on society, education for science literacy must start at the elementary level.

Objectives are not common to all schools and all children. It is essentially about the kind of society we want. Schools both transmit and create values and expectations. The teacher has to play a great role. Any teacher of young children experiences the dual need for loyalty to both individual and group. The teacher has to handle this balance delicately, so that all the children know that nothing is constant and the universe is always changing.

A child could be made aware of the environment so that he feels that his existence is related to it. Children enjoy nature, they like the adventure of outdoor life, and animals arouse their curiosity. In this context, they should be made aware of scientific developments and improvements related to environment. Elementary school science can instil a desire in children to know about the things they observe.

They can observe it by performing some of the activities as given below.

1. Keep the cut flower for some time and observe.
2. Observe the milk in the evening which was once boiled in the morning.
3. Put a green tomato in sunlight and observe.
4. Keep a coloured paper in sunlight and observe.
5 Keep the egg in boiling water for ten minutes and observe.
6. What happens to an apple that has been cut.
7. Observe the cut vegetables after two hours.

Let us now take the case of air and discuss how the properties of air can be taught at primary school.

Concepts

1. Air is necessary for life.
2. Air is a mixture of many gases.
3. Animals and human beings use oxygen for breathing and give out carbon-di-oxide.
4. Plants take in carbon-di-oxide and give out oxygen during the day.
5. Air can be polluted in many ways.
6. Air pollution should be minimum.

Air is necessary for life

When you are sitting in a very small closed room you start feeling suffocated very soon. If the room is very big you may feel the suffocation after some time. This is because the oxygen of the air has been used by you for breathing.

Windows and ventilators are necessary for the room, so that used air can go out and fresh air can come in and the cyclic process can go on.

Air is necessary for breathing

Activity Ask the children to close their nose for a minute with the help of their fingers and ask them if they felt uneasy when they closed the nose, and develop the concept that air is necessary for breathing.

Air is a mixture of gases. Mainly oxygen and carbon-dioxide are present. Other gases are present in little quantity.

Oxygen is necessary for burning

Activity : Take a candle. Put it on a dish containing water. Light the candle, and put a glass over it. After some time the water level rises in the glass. The teacher explains that oxygen of the glass has been used by the burning candle and so the space is occupied by water.

Carbon-dioxide is given out while breathing

While we breathe oxygen, we give out carbon-dioxide and all the animals perform the same function while breathing.

Plants clean the air

Plants take in carbon dioxide and give out oxygen, This means that the plants clean the air which animals have made dirty and so there is a need to grow new plants and trees. Plants also help in the conservation of soil which plays a vital role in growing our necessary food.

(*i*) Throwing the garbage in open.
(*ii*) The kitchen smoke.
(*iii*) Smoking.
(*iv*) The industrial smoke.
(*v*) Radio, TV.
(*vi*) Horns and Bands.
(*vii*) Aeroplanes, etc.

(*i*) If you throw the garbage in the streets, it gives out a foul smell and pollutes the air. Mosquitoes and flies breed, which help in spreading disease. *So always throw the garbage in a dustbin.*

(*ii*) In burning the *angithi* and other ovens, oxygen of the air is being used up and carbon-dioxide is produced, which is poisnous and should go out of the kitchen. So the kitchen should be provided with a chimney.

(*iii*) You might have seen people smoking *bidis* and cigarettes. This spoils the lungs of the person and the people sitting around also get the bad effects, so they should not smoke.

(*iv*) Have you seen any factory? (A field trip can be arranged). The smoke coming out of the factory has got many poisonous gases which get mixed up in the air and in turn affect our health so factories should be established far away from the residential areas.

(*v*) Some people put radio and TV on a high pitch. They should know that their neighbours may not like the high pitch of their radio and TV. This may create bad relations between neighbours *so never put a radio or TV at a high pitch.*

(*vi*) Horns used by truck drivers and Bands playing at marriage parties may be liked by very few people, but they are a nuisance for others. The atmosphere gets polluted by noise.

(*vii*) The sound of aeroplanes is not good for ears and can affect our health in many ways.

All of us have to travel from one place to another. Different vehicles may be used for the purpose. These vehicles will leave some smoke and often use their horns so we cannot avoid the air pollution but it should be minimized by taking the following precautions.

1. Garbage should not be thrown out in the open.
2. Ventilators and windows should be there in the houses.
3 Our environment should be kept clean and preserved.
4. More trees and plants should be planted.
5 Low pitch horns should be used.
6. Silencers should be used for vehicles.
7. Radios, TVs, etc. should be used at a low pitch.
8. Factories should be established far away from the residential areas.

Questions

1. What is the use of windows ?
2. Why should the plants be protected ?
3. Why should new trees be planted ?
4. List the type of sounds which are pleasant to the ear.
5. List other sounds which disturb us.
6. What difference do you find, (*i*) if you go to a factory, and (*ii*) if you go to a garden ? ☐

Role of Primary Teachers in Rural Areas

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SOME KIND of primary education has always been there in India. However, the present standard of education is more scientific and more developed. It has been changing with time. The primary teachers have brought about changes in rural life and also in the standard of education.

I remember my old days when I was in Class II. Once a teacher beat me with a stick. During those days teachers were in the habit of using sticks to discipline the students. My fault was that I had copied the signatures of a teacher. He got very annoyed and slapped me. Not content with this he repeatedly threw me on the floor. Although I was a bright student of the school, but his attitude towards me was not influenced by the fact. I could get rid of him only when he was transferred to another district. But one thing surprised me that his students rose in life to hold better positions than the ones who could not get an opportunity to be his students.

The twentieth century is the period of scientific and educational development. Since independence we have developed various methods of teaching science. Our ancient education had cultural and religious core but it was not scientific in the modern sense of the term. The educational methods being used in schools today are basically scientific. The role of teachers in the villages is praiseworthy. They show their interest in both written and practical work of the schools and colleges. The purpose of primary education is an all-round development of the child.

The rural children should be given proper education and this education should be socially useful and productive. Gradually, caste feelings and communalism are vanishing from our schools. The teachers can also help in eradicating them.

In India the primary teacher has always been neglected. He is the builder of the nation. He prepares future citizens of the nation. One is not sure why he has always been neglected. Now the time has come when we should recognize his importance in school and society. But he must also realize his duties and responsibilities towards the nation.

India has always been a seat of learning. We need to evolve a

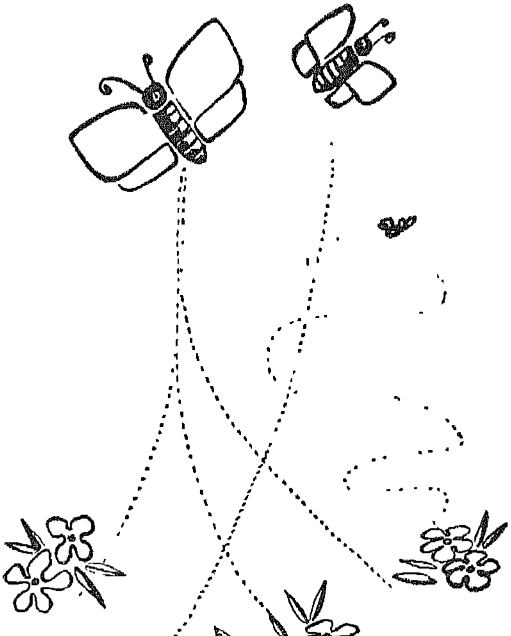
**Forgotten and uncared for,
he has been working
patiently at the base
On him depends the well-
being of our future citizens.
He is the beginning of
the beginning.**

new educational system and methods to give education a new direction. Primary education is that stage of education which could change the view of the children and develop their character.

The spread of education in India is the index of progress. The rural teachers have played an important role in this development.

In our villages education is being imparted in accordance with the changing values. Keeping the new education method in view and realising its importance rural teachers should be given priority and proper recognization. Primary education will be satisfactory only when we effect changes in the working conditions of rural teachers and also in the education imparted by them. □

TEACHERS WRITE



Contemporary education

EDUCATIONISTS and directors of education have from time to time talked about the methods and techniques useful in making children learn more, and that too more readily besides putting that knowledge to use. The drawback of of the present educational system is that it is not relevant to life. How could one put this type of knowledge to practice? In this context whatever changes have been made are only in name and, therefore, the attainment is also negligible.

Acknowledging that the present educational system is not very relevant to life, let us see to what extent the children are benefited by it. What are the methods by which children can be made to learn more? It so happens that writing on the black-board or lecture by the teacher does not help the child to use it in his life. But if these lessons are given to the child at a proper time he could derive maximum benefit from it. The effect would thus be very sound and the child is not likely to forget it easily. For this neither the teacher nor the student has to think more. Even changing the sequence of lessons at the time of teaching also resolves the problem to some extent. For example, a poem on Republic Day is prescribed in the book. We all know this day falls on January 26 but the teacher may have to take it up in some other month. This is not good. If the same poem is taught on January 26 or in the month of January, children can grasp its significance more readily. The reason is that at that time children come to know a number of things about this day from the teachers, public lectures, radio and newspapers, etc. All the lessons related to the state of mind of the child are readily accepted, this is a psychological fact. If something is imposed on the child, it does not stay there for long. The child can be asked to recite this poem and reproduce it on the Republic Day.

We have numerous examples of contemporaneous teaching, *e g.* different festivals and the lives of great people. On the occasions of festivals the schools remain closed. At the time of announcing a holiday children must be told why they are getting it. They should also be informed about its historical importance and customs observed on such a day. They themselves can see all these things. When the school reopens relevant questions can be asked and thereafter the related lessons may be taught. Such lessons will be comparatively more effective.

While, working according to the suggestions offered earlier certain things should be kept in mind. First, the teacher should take up a lesson at the proper time. Secondly, while arranging all the lessons in the book their expected time of teaching (monthwise), must be kept in mind. Then, according to that all the lessons must be arranged in such a way that they fall in the neighbourhood of the festival or national days. In this way the problem can be solved and the knowledge children gain can be made effective.

Besides these, some other things should also be followed to make education more interesting and effective, e.g. one or two dramas can be included in the syllabus. Usually teachers teach them as stories which is not a good technique. It would be much better if the lesson could be dramatized. This would make it interesting. Gandhiji has written in his autobiography that the effect of the play "Satya Harish Chandra" was so much on him that truth became a part of his life. Children are influenced more by plays than by stories. They acquire more knowledge from plays. A play also entertains. But the teachers should be careful while making the selection of children for different roles otherwise the entire effect would be lost.

We should also accept the importance of diagrams in teaching and should try to use them. By following these methods the lessons can be made more interesting, more effective and can be grasped more easily.

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How To Improve Your Handwriting

THE practice of writing should be encouraged from Class I. In the beginning students write on wooden slate with reed pen. The teacher must see that the pen-point is not thin, instead it should be broad. If the children write with a fine point pen they cannot write the full letters. The size of all the letters in alphabet must be uniform. If one letter is small and another big, it would affect handwriting and the letters would not look beautiful. The distance between two letters should also be equal throughout. To write one word, the line left before the first letter and the line left after the last letter of same word should be equal. To put words in a sequence the teacher must draw straight lines on the wooden slate at equal distance. We can also get such exercise-books in the market in which the size of letters is determined by the lines drawn over it. These exercise-books should also be used The teacher who teaches how to acquire good handwriting should himself be adept in it. The teacher must write beautiful and uniform letters and words on the blackboard and ask students to copy them. The teacher must proceed with this process with patience and encouragement.

The Sitting Posture at the Time of Writing

The teachers must also be careful about how the students sit at the time of writing. The sitting posture also has its effects on their writing. If a child grows the habit of bending down while writing, his spinal cord will remain bent even at the time of walking and standing. Holding a book or an exercise book very close to one's eyes may cause strain and affect his eyesight. Bending the body in different postures results in varying shapes and sizes of letters. If the child at one time bends a little and at other time he bends more, the letters written would be different. If he again sits up straight, it would again change the letters. In this way the uniformity and distance between two words or two letters will be adversely affected. This is hardly conducive to good handwriting.

The results of this sort of writing are bad. Such a student finds it extremely difficult to work attentively on the table for a few hours at a stretch. He fidgets and shows his uneasiness in the changing postures of his legs. Naturally all this has a telling effect on the speed of his writing.

The Writing Posture

The student should always sit in the *Virasana*, i.e. left knee bent and right knee on top of it. On the right knee he can put the copy on which the student has to write. The teachers must see that the shoulders and the right hand are at 100 degree angle. In the case of left handers the left hand should be held at the 100 degre angle. This angle should not be more because then it would increase the disltance between the eyes and the etters. As a result of this the student would fail to write straight.

The student should practise how to hold the pen. Some people hold pen tightly with four fingers, some with the finger next to thumb, but both these methods are defective. The right way of holding the pen is to hold it with thumb and the other two fingers next to it. In the lower classes the emphasis should be on writing beautiful letters and not on the speed of writing. From Class III onward speed should be emphasized. The teacher must see that the student coming out from the school writes a good hand with good speed.

Correcting the postures is very important. It is a simple experiment but the results are very beneficial. Teachers ought to pay attention to the problem of postures from the start.

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How I did it

IT IS BUT NATURAL to provide proper opportunities to every child to help him participate in nation-building task. So, in order to help him discharge his responsibilities, it is rather essential that the curriculum of education of the child should lay particular emphasis on developing habits of correct writing and speech.

The position of education in rural India is not particularly happy in this regard. It is important that little children in our schools who are the future builders of the country, should be taught to correct their mistakes before they develop the wrong habit of speech and writing. For example, there may be children who falter in their speech or lack clarity of pronunciation. Such children should be paid special attention to help them overcome their difficulties. Remedial work for such children would help them a great deal particularly at an age when they are most amenable to improvement of the development of their personality. It is my experience that most of the teachers in our schools do not pay any attention to this aspect as they consider it to be an uphill task.

It is an old saying that practice makes a man perfect. In line with this proverb I selected children from Classes III to V to help them develop a proper understanding of the words they use in their speech and writing. On the basis of a pre-test, I found that about 95 per cent of the students would wrongly pronounce some words and letters and would therefore write and speak them wrongly. I chose only five letters for the task of improving their speaking and writing.

I evolved a plan to teach correct pronunciation and writing of these letters. First, I took up a particular letter and developed ten words with it to be drilled by students. Then, I asked the students to write as many words as possible with that particular letter. Every correction was explained and drilled both in writing and speaking. This practice was continued at least for one week for a letter and the same was repeated for other difficult letters. This is how I could help them practise pronunciation and writing of different letters. Later, on the basis of another test, only 45 students out of 75 needed further improvement in this task.

This task seemed very difficult in the beginning. But with the passage of time and the initiative shown by students in learning these letters, I, as well as my students, gained more and more confidence and courage. This has also given me confidence and determination enough to undertake systematic and planned remadial tasks in removing different problems of my student.

Incidentally, I would like to recall, in this connection, a few experiences of my school days. I made a number of pronounciation mistakes and my teachers did not pay any attention to my lapses. As a result I developed the habit of wrongly pronouncing a number of words and committed mistakes even in writing them. But, since I have myself become a teacher, I have realized that it is a great mistake on the part of teachers to ignore even minor mistakes of students. I am sure as a result of my habit of mispronouncing certain words, I might have transferred my lapses to my pupils.

I therefore feel it essential for every teacher to pay due attention even to the negligible mistakes made by students in their day-to-day task in schooling. This is specially important for teaching and learning one's mother tongue.

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Development of Creativity in Children

WE SHOULD TRY to define the term 'creativity' first. It means originality. In the context of children it is a form of reflective thinking that is spontaneous which, if given timely encouragement, leads a child on to form new hypotheses. Thereby, new value patterns are established. Creative thinking, therefore, is the source of all accomplishment. Accomplishment, in its turn, gives a direction to creativity.

Development of Creativity

Creativity is either latent or manifest. The latent talents in children must be nurtured if their potentials are to be realized. The following steps should be taken for this purpose :

a) Choosing a problem;
b) Selecting a process;

c) Creating a suitable environment.

The development of creativity in schools could be in the physical, educational or emotional spheres. Teachers should try to resolve problems through the teaching process. This would inspire the children to be creative. The following considerations may be borne in mind :

1) Achieving something new;
2) Usefulness;
3) Satisfaction;
4) Originality.

Usefulness of Creativity

Creativity leads to certain behavioural changes in children. These are listed below :

1) They become goal-oriented.
2) Their thinking becomes elastic so that their adaptability in any situation is increased.
3) Creativity leads to spontaneity and independent thinking.
4) Their latent abilities begin to appear on the surface.
5) Comprehensiveness in creativity is apparent.
6) They take quick decisions.

Qualities of a Creative Child

1) He can concentrate on several things at a time.
2) He can take independent decisions.
3) He resolves complicated problems.
4) He has the ability to connect several desparate elements.
5) He is able to percieve different aspects of things.
6) He has a sense of humour.
7) He is active.

The Role of the Teachers

It is necessary for a teacher to be creative in order to be able to teach creativity to children. The teacher can, by creating novel situations, inspire children to be creative. The children's response is not likely to be disappointing We should try to adapt our thinking to the changing situations in life. The child is today an important subject of research and therefore the teacher should take note of the following :

1) Proper guidance and encouragement by the teacher would help the child in his efforts for scholastic and emotional accomplishment.
2) Presenting new problems to the child, so that he may himself find a solution to them, would help develop his latent talents.
3) Exhibitions, particularly science fairs, are helpful.
4) Children should be given new information about inventions and discoveries and when they prepare exhibits they may be rewarded.
5) Children may be encouraged to write for the sake of developing their imagination, reasoning or originality. Their writing may be published in school magazines or state-level journals. This will have

a good effect.

6) By developing originality in children, the teacher can help them become creative.
7) Children thus trained would develop democratic tendencies. They would not then show signs of frustration, so common these days.
8) Mock parliament sessions may be organized to develop national integeration. Elections to various committees and groups also help to become more creative. Problem-solving is particularly helpful.

Creative children should be given awards, prizes and trophies. New teaching methods, experiments and problem solving approaches are very helpful. Teaching theories should be applied in the classroom and not merely discussed at meetings. Selection of textbooks is also important.

Group-meetings at the school or state levels are helpful. The teacher-pupil relationship should be creative and constructive. Anything that is creative and original should be encouraged.

A committed, creative teacher is absolutely essential for the establishment of new values. Asa teacher identifies a creative child he must alter or adapt his methods of teaching.

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Art in the Primary Schools

TEACHING OF ART is not taken seriously in primary schools. Any teacher is assigned this job irrespective of his interest or knowledge of the subject. No serious attention is paid to the subject. The teachers go to the class and ask the students to draw anything. Normally there is no specific period allocated for art. Concerned teachers also do not draw on the blackboard for the children's guidance.

The children have no colours, brushes, pencils and erasers, or a neat drawing copy. Art is a very important subject. Teachers should take interest in it and the children's interest should be developed. Art is a part of life. Without art there is no distinction between man and animal. It is, in fact, very easy to teach. Let us now examine how to teach it.

Art is such a subject in which neatness is the main consideration. Children learn from this subject to remain neat. Their aptitude for art teaches them cleanliness. Attractive colours easily catch the attention of the child.

A lot depends on this subject to make a child develop a good handwriting. A child learns to draw straight lines, curves and circles in art. It is the basis for good handwriting. If the strokes are correct, the child would develop a good handwriting. For practising good handwriting the child learns first of all strokes and this obviously is the first lesson in art.

Aptitude for aesthetics is developed by art. Any untrained eye can look for beauty but the specific attributes of beauty cannot be identified without the knowledge of art. Art does not merely teach a man to admire it, it also helps one to learn to live. The child learns to use things around him beautifully. He arranges books, wraps them up by buying cover paper so that they do not get dirty For girls art is must. They have to knit, stitch and buy clothes. How to use colours can be learnt through the knowledge of art. What particular arrangement of colours they should have while knitting a sweater so that it is pleasing to the eye the girls learn from art. 'Alpana' for auspicious occasions is learnt through art. All girls have to decorate and beautify their homes, this is an important subject and the teacher can teach it from the early childhood and instil in them a taste for it. The child's intelligence can be sharpened and developed through art. He can give shape to his imaginations through brush and colour. The first flights of imaginations are caught in the art class.

How shall we decorate our own school? How to arrange classes tastefully with the materials available? These young lovers of art in their zeal decorate their classes and they have been seen to arrange their own rooms in their homes with art work. How to organize and arrange school gardens and flower beds, the children learn through art. It has been observed that the students of art do their work much better than any other students who have not been initiated into art.

Exceptionally brilliant children catch the attention of the teacher and if they are guided properly they become good artists. After the so-called dull subjects like mathematics or science the art period makes the child immensely happy. Their colourful imagination starts soaring high. At least for an hour they are liberated from a peculiar type of tension and feel happy which enables them to sit through other periods during the school hours. Children can participate in international competitions also and even while in school they can earn honour and recognition.

Art is universal language among children. A child from one country can understand the language of another living far away through the medium of brush and colour, because a child expresses himself through them. The children by looking at works of art from foreign countries can learn a lot about the culture, ways of living and food habits, etc. of other countries.

Art is a very good medium for mental development. Through practice and appreciation of art the mental maturity of a child increases. Such then is the importance of the subject and yet it is the most neglected in the class room. People placed in responsible positions like those of principles of schools or district education officers must pay a closer attention to teaching of art.

The absence of art materials, however, should not deter a mentally alert child, because he can draw lines on waste paper also and use charcoal. Even charcoal lines can look beautiful and they are readily available. If we try to improvize we could do so easily in the classroom. A teacher could provide all these facilities without much expense and trouble.

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Discipline and primary schools

THE PROBLEM of indiscipline among the youth should be accepted as a national problem. How shall we resolve this problem ? Instead of seeing that children are kept under discipline, people keep on blaming each other for the present state of affairs. A few accuse the teachers and the guardians for indiscipline and others allege that this responsibility is entirely of the children themselves. As a matter of fact what is needed is the solution of the problem and not accusations. The teachers and guardians should have been careful from the primary schools onwards. Then this problem would not have acquired terrible proportions it has already had.

There are two schools of thought about keeping the children under discipline. There is a saying in English which says 'Spare the rod and spoil the child'. The ancient Indians were protagonists of the other school which said that till the age of five the child should be loved harsher methods should be applied when he is ten years old, and at the age of sixteen should be treated like a friend. Normally, a child is spoiled between the ages of 5 and 15. During this period the children could be reprimanded for their mistakes. Perhaps Pandit Moti Lal Nehru also believed in this principle. For having taken a pen from the pocket of his father without proper permission Jawahar Lal Nehru was severely caned by Shri Moti Lal Nehru.

In a few institutions these days the use of rod is very frequent. Children call it 'Destroyer of Sorrow' and in good humour they say that the rod is the panacea for all diseases as if the teacher's personality does not count at all and the inert rod is everything.

The psychologists ban the use of rod completely. According to them the teacher should neither reprimand nor hit a child. They say by doing so the inner development of the child would be blunted. The child would become a coward or weak or withdrawn. We have to consider these two opposite schools of thought. On one side there is the unpsychological behaviour and the cruel use of rod which makes children run away from schools and drop out and eventually become truants. On the other hand, there is the problem to act as they choose and finally grow into indisciplined persons and be a burden on the society thereby creating a national problem.

Who can say that because of his father's harsh method of disciplining Jawahar Lal did not grow or his intellect was blunted ? The stories of Rabindranath Tagore's childhood are often stories of pain. He was looked after by domestic servants who used to control him fully. Wherever he would sit, a line was drawn around him with a chalkstick and he was not permitted to cross it. Who can say that the severe discipline imposed upon him prevented him from growing into a great poet ? The psychologists claim that Nehru and Tagore were exceptions. Punishment did not have any impact on them. The family culture and the extraordinary stature of these people offset the severity of the punishment. It is on the children from ordinary family that punishment has very bad effect. However, if the punishment is of the psychological nature it would help discipline greatly. On the basis of the analysis of these two schools of thought following suggestions could be offered.

1. Discipline must be impressed upon the child from the very beginning. Only teachers can never be successful unless the parents also cooperate. If the parents objected to the punishment given by the teacher, the child is likely to become extremely rude and, therefore, it is necessary that what the teacher does has the approval of the parent or the guardian.
2. A constant collaboration is necessary
3. Physical punishment is tabooed. If under such circumstances it becomes necessary it should be seen that it has no impact on children's health. Cane should never be used in anger. When a teacher is in anger he should not use the cane because under such circumstances it is likely to be misused and it would create terror in the heart of the child. It is possible that the child may think of taking revenge on the teacher or even become a truant.
4. There are certain processes of giving punishment. For example, a child could be detained in the classroom after the formal teaching is over. The punishment should be withdrawn if the child finishes his lessons within the specified time limit.
5. A child could be made to stand on the seat he sits on. It is likely that child would improve his behaviour. A child could be asked to take a complete round of the school boundary.

6. If a child has committed a mistake his father could be called to the school and told about the misbehaviour of his son. Just as the children do not like that what happens to them at home is made known to their teachers, they also do not want that what happens in the school should be made known to their guardians. This is psychologically true. When the teacher tells the child that his parent would be called and informed about the mistakes, he would not like it. This by itself is sufficient to make the child be careful about the future and in most cases the teacher is successful even with a small remark like this. In the case of children who continue to misbehave, the joint efforts of teachers and guardians are sometimes successful in preventing them from becoming rude and indisciplined.

7. *Maintenance of a conduct book.* If a child comes to know that his misbehaviours are recorded in the school and his good or bad behaviour will have an impact on his examination, that also has sufficient impact on his behaviour. The record book of this type could contain three categories or entries such as ordinary, serious and very serious and for each mistake, marks could be deducted from his six-monthly or annual examination mark-sheets. on the following lines: for ordinary mistakes two marks, serious mistake 4 marks and very serious mistakes 6 marks could be deducted While recording mistakes in the record book if the information of the same were made known to his classmates it will have a good impact on the child.

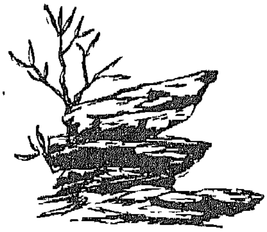
Mere punishment does not resolve the problem. It must also be complete by a system of giving rewards. For awarding marks for good conduct, certain processes could be evolved. For example, a child could be made the group leader or monitor of his Class for his good behaviour. If these positions are kept temporary they will create a sense of competition among the children.

These actions could also be reported at the Parents-Teacher's Meetings which would have a positive impact on the behaviour and discipline of the children. In the conduct book a similar system should be adopted to award marks and to add them to the total number of marks obtained in the examinations on the following basis. For any laudable action 4 marks, for particularly praisworthy acts 6 marks, and for the extremely praisworthy acts 8 marks.

Such actions on the blackboard outside the school or in the corridor within the school could be mentioned among with the description of the act. The names of the children who secure the highest marks in this connection could also be mentioned on the blackboard. The real great are known from the early childhood itself and their childhood is also full of bravery and acts of kindness to others. It is said that 'Coming events cast their shadows before'.

It may be mentioned here that only that child would be disciplined who is good in his studies. If the teacher keeps the child more and more disciplined and makes him work hard he would be able to cope with his class work.

GAYA PRASAD SHARMA
Primary Teachers' Training College
Saurath, Madhubani
Bihar □



News and Views

FROM THE FIELD UNITS

Bhopal

Dr. Shib K. Mitra Director, NCERT in his presidential address delivered at the 52nd All Indian Educational Conference held at Tagore Hall, Bhopal gave details of the policy on school education. He demanded in the conference organised under the auspices of AIFEC that education should be free up to Class VIII or up to the age of 14 whichever was more Even in the private schools he declared that admission should be on the basis of merit and the fees charged should be reimbursed by the local authority, which in turn may be raised through taxation. In this way the private schools could continue charging fees. The schools should also provide textbooks and exercise-books to every child admitted, free of cost, besides meals and uniform—up to Class VIII.

Prof. Mitra emphasized that every child should read first language for 8 years, second language for 3 years, science and mathematics, physical education and aesthetics and the details of all these should be worked out at the district level.

Each district, he wanted should have a district board of elementary education with the district magistrate as chairman. A few non-official members should also serve on the board. At the state level a similar body may be constituted with the state minister of education as the chairman. The function of the board should be to coordinate the activities of the district boards and should also hold the examination at the end of class VIII. At the end of the class V the district board should examine these candidates. At the national level the Union Minister of Education should be the Chairman of a National Board of Elementary (Basic) Education. It should have 50 per cent members from the Government and others should be non-officials. The function of the national board should be to lay down the guidelines of implemention at the state level.

Prof. Mitra emphasised that the administration of education should be decentralized in each state so that all are free to develop the programme, curricula and evaluation they want. In-service teacher education was a must and this programme may be undertaken by different bodies at different levels. The national board should have a machinery to monitor and evaluate the programme.

There was also a need to have nonformal educational programmes voluntary agencies like youth organizations, social workers associations, etc. should also be roped in to provide education for children in the age group of 6 to 14. Part-time education and multiple entry system should also be introduced. These require an infrastructure of institutions at the district and block levels. This infrastructure may include a high school, a health centre and an agricultural farm, a college or a hospital, etc. as the base. A support system is also to be built involving adult women. There was a need to change the attitudes of adults particularly those of mothers towards education. A liberal policy of recruiting volunteers among women should also be adopted. These women should come from the same locality or village, if possible. They should be trained in non-formal education.

He pointed out that the resource centres have to be organized in block and district both for surveying resources available to produce and procure more resources for the purpose. There was a need to have long distance communication system. There was particularly a need to expect college students to go to villages during vacations and teach children within the age group i.e. 6 to 14. He also touched upon the need of financial support to be given to voluntary organizations for the purpose of producing educational plays. The agriculture and health extension workers at the village level should be motivated to participate in this activity. News papers have also a positive role to play in this regard.

System of B.T.I. training is changed

Till the last year the training period of the Basic Training Institute was one year at the Institute, followed by another year through correspondance course in the field (school). After a careful study of the system, the Government has decided that in the second year also the trainee-teachers should contiue in training institutions and not in schools. This change is expected to bring some qualitative improvement in teacher-training programme as a whole. □

Patna

The prize winners in the essay competition on "Educational Reform", organized by the National Council of Educational Research & Training for the State of Bihar.

ELEMENTARY STATE : FIVE PRIZES

First Prize	(Rs. 500/-)	Sri Ram Sebak Singh, Assistant Teacher, Middle School, Sohagi, P.O.-Sohagi, Distt.-Rohtash.
Second Prize	(Rs. 300/-)	Sri Gajendra Pd. Singh, Assistant Teacher, Middle School, Mahua, Distt. Vaishali.
Third Prize	(Rs. 200/-)	Pandit Birendra Kumar, Shrikrishna Middle School, Sakarwartola, Mokama, Distt. Patna.
Consolation Prize (fourth position)	(Rs. 100/-)	Sri Bindheswari Jha, Govt. Middle School, Madhura, P.O.-Singiaban Block-Kisanpur, Distt. Saharsa.
Consolation Prize	(Rs. 100/-)	Sri Baijyanath Roy, Assistant Teacher, Middle School, Gowal Khor, P.O. Gowalkhor, Distt.-Santhal Pargar.

Pune

Two hundred and sixty-two kit-boxes were distributed among different primary schools of various municipal school boards in the State, implementing the NCERT science syllabus for the improvement of science teaching.

The Government of Maharashtra organized a state level conference on primary and secondary education on the 29th and 30th May, 1978, to discuss the Sixth Five-Year Plan for primary and secondary education. Many recommendations were made at the conference, the important among these aim at revamping primary education in the State. Some of these recommendations are mentioned below.

a) 'School mothers', on a monthly remuneration of Rs. 100/- for the *Balwadis* of primary schools should be engaged. Such *Balwadis* should be started in villages with a population of at least 200, at places where primary schools are already functioning.

b) In the hill districts, primary schools may be opened in localities with a population of more than 100.

c) Secondary schools may be started if at least 20, 15 and 15 students are available for Standards V, VI and VII respectively in localities which do not have such schools within a radius of 3 kms.

d) Schools with 40 students or where Standards III and IV could be started, should have two teachers. This envisages conversion of a very large number of single-teacher schools into 2-teacher schools.

e) Schools in Adivasi (Tribal) areas with even 25 students should be provided with 2 teachers.

f) Accepted the recommendations made by Ishwarbhai Patel Committee that teaching hours in the first four standards be restricted to 3 hours and creative programmes be included in the curriculum.

Srinagar

Non-formal education

The State Development of Education, in collaboration with the various agencies like Handicrafts and Social Welfare Departments, is going to organize non-formal education for trainees working in various handicraft centres. The methodology and the instructional materials adopted for these are being worked out. The NCERT'S expertize in preparation of instructional materials and textbooks for such centres will be helpful in the implementation of the programme.

Physical education has been given due weightage in the school curricula and is being made a subject for examination in schools which every student shall have to take compulsorily. A syllabus on health and physical education has been prepared and published by the Directorate of Youth Welfare and Sports for Classes I—VIII. At district and tehsil level, one teacher from each school is being trained for 21 days to introduce the subject in the middle schools. More than hundred teachers have been trained so far.

New Delhi

National Awards for primary school teachers

Fifty-eight primary school teachers received National Awards for the year 1977 on August 28 from the Vice President B. D. Jatti, at a ceremony held at New Delhi.

Addressing the teachers, Mr. Jatti emphasized the important position of the *Guru* in the Indian educational system. Teachers have the foremost role in the dissemination of knowledge. Teachers will always have to lead in removing illiteracy from all over the country.

Mr. P C. Chunder, Union Minister for Education, said that the government proposed to enrol 90 per cent of the children in 6-14 age group by the sixth plan. "In the first two years of the succeeding Plan, we hope to reach the target of 100 per cent enrollment", he added. Mr. Chunder emphasized the additional responsibility of the training institutions in view of the dimension of the national effort.

Each awardee got a certificate of merit, a medal and a cash prize of Rs. 1,000/-. Started in 1958, the scheme of National Awards aims at raising the prestige of the teachers and recognizing their outstanding merit. The number of awards alloted to each State depends upon the strength of teachers in that State. Roughly there is one Award for every 30,000 teachers.

To be eligible for the awards, teachers and headmasters should have teaching experience of at least 15 and 20 years respectively. Retired teachers are not considered. The main considerations which guide the selection are the teacher's reputation in the local community, his efficiency and desire for its improvement. He should have genuine interest in children and deep involvement in social life and activities of the community.

How some of these teachers helped their students and the community, pioneering many projects with a missionary zeal is described below.

Shri P. Lakshmaiah is a Secondary Grade Assistant in the P. S. Upper Primary School, Chittoor, Andhra Pradesh. He has taken keen interest in the progress of the school and persuaded the villagers to collect donations to convert the upper primary school into a high school. He is well versed in the latest evaluation techniques. He has been paying particular attention to the improvement of backward children by holding special classes after school hours. He believes in personal contact and informal teaching. His cordial relations with fellow teachers and students have helped him in raising the teaching standard of his institution. He has great respect for authority and his devotion to duty is noteworthy.

Shri Jogeshwar Dasis a primary school teacher in Natun Sarania Prathamic Vidyashala in Gauhati. He has put in 29 years' service as a sincere and hard-working teacher. He has been able to inspire his pupils by his helpfulness and keen interest in their welfare. His students have shown uniformly brilliant results in the Primary Scholarship Examination every year. Under his stewardship, the Vidyalaya has grown in strength and stature and earned a good reputation as a seat of learning.

Shrimati Mabel Hemrom, a primary school teacher from Bihari Girls Middle School, Hazaribagh, Bihar, has been in the teaching profession for the last 24 years. Dedicated to her profession, she is a born teacher and has a deep insight into the difficulties of her students. She controls the class and organizes all activities quietly and confidently. Earlier preparation of the lessons and actual reading of the students response are the cause of her success in the classroom. She devotes extra hours, helping weak students on holidays or after the school hours. She is deeply interested in promoting girls' education and attempts to retain the enrolment of students throughout the year.

Shri Devidas Mukand Mahadar is headmaster of Shankar Rao More Vidyalaya in Pune. He is a teacher with an experience of 36 years to his credit. While working as a voluntary primary teacher in Satara district, his services as a teacher were appreciated and he was rewarded. Then he worked as an assistant teacher in M.G. Vidyalaya, Pachwad, Satara district, and later on in Sadhana Vidyalaya as a headmaster for a long time. The marks secured by the students in the subjects he taught were always between 90 to 100per cent. Within a very short time he built up the school to its present standard. His school has also won a prize of Rs. 100/- in the scheme of '*Swachha, Sunder Shala*' organized by Kirloskar Oil Engineers Ltd.

Shrimati L. E. Bangera is headmistress of B.M. Higher Primary School in South Kanara, Karnataka. She is a teacher with meritorious academic career and a commendable record of service for 20 years. She believes in teaching with visual aids for which she has prepared a number of charts and pictures. She has published *Gana Sudha*, the school magazine. Through her efforts, she has upgraded the school from the primary to the higher primary level with a strength of more than 750 students Her school has been selected as the best for two consecutive years in the Good School Contest. She was also awarded a bronze medal for her works. She has introduced incentive schemes, mid-day meals, supply of dresses and uniforms to improve attendance in the school. She conducts special classes for backward students.

Shrimati Shanti Devi Kokila is headmistress of Primary Kanya Pathshala in Harnathpura in Saharanpur district. She is a reputed writer and orator. For the last 25 years she has been working hard to earn a good reputation for her school. She is a good administrator and an equally good organizer. Social service is her field of activity for the betterment of her community. She is vice president of the old organization '*Hindi Mitra Mandal*' and was awarded with '*Sahitya Shree*' by the organization. She has taken part in the All India Primary Teachers Organization Course and served as sub-

Some of the teachers, who won the National Awards for the year 1977, with the Vice President Shri B D. Jatti (centre), and Union Minister for Education Mr P. C. Chunder, (left) and Union Minister of State for Education, Smt Renuka Devi (right), at a ceremony held in the Capital.

editor of *Rajput Hiteshi Patrika* a monthly magazine She has earned fame for composing songs. She commands wide respect and maintains perfect discipline among the students.

Mme Lila Coumar de Tayil is the Secondary Grade Teacher in Pondichery She has rendered 40 years' useful, service as a painstaking and consciencious teacher. She takes the students to Harijan living areas and explains to them the importance of cleanliness. So she has become a well known social worker in the area. She believes in making lessons simple for the students and conducts experiments in science in such a way that pupils understand the lessons easily. She reviews the marksheets of students every month and obtains the cooperation of parents in raising the attainment of her pupils. The school has been gaining strength due to her able guidance.

Shri Joti Ram Sharma is headmaster of M.C. Primary Model School in Palam village, New Delhi. He has put in 28 years of service as a teacher. He believes in the importance of crafts and takes great interest in promoting craft-work in the school. In spite of limited space and resources, he has been able to inspire students to make various items. He gives special attention and assistance to the gifted and weaker students. His dynamic personality is a great asset to his institution.

LIST OF AWARD WINNERS

Primary School Teachers

1. Shri P G. Sharma
   Headmaster
   P S. Elementary School
   Velagalavaripalem
   Penumantara Block
   West Godavari District
   Andhra Pradesh
2. Shri K.V. Sharma
   Headmaster
   Samithi Upper Primary School
   Indrapalem
   Kakinada (East Godavari)
   Andhra Pradesh
3. Sh. P. Lakshmaiah
   Secondary Grade Assistant
   P.S. Upper Primary School
   Mallela Post, Madanapalli Taluk
   Chittoor District
   Andhra Pradesh
4. Shri V.G. Rao
   Ex-Assistant
   U.P.S Madanapalli
   New Headmaster
   Primary School, Bardipur
   (Nizamabad Block)
   Andhra Pradesh
5. Shri Jogeswar Das
   Head Pandit
   Natun Sarania Prathamik
   Vidayala
   Gauhati, District Kamrup
   Assam
6. Shri Ram Narain Sinha
   Headmaster
   Mosaboni Mines Middle School
   P O Mosaboni Mines
   District Singhbhum
   Bihar
7. Shri Jamuna Prasad Sinha
   Headmaster
   Ratanpur Middle School
   Begusarai
   District Begusarai
   Bihar

8 Shrimati Mabel Hemrom
   Assistant Teacher
   Bihari Girls' Middle School
   Hazaribagh
   Bihar

9. Kumari H.A. Desai
Headmistress
Adarsh Kanyashala No. 2
Near Ramji Mandir
Dhandhuka
District Ahemdabad
Gujarat

10. Shri G.C. Desai
Headmaster
Kumar Shala
Vapi
Taluka Pardi
District Valsad
Gujarat

11. Shri R.D. Patel
Headmaster
Kanta Sayan Basic Education Primary School
Kanta Sayan (Taluk Hansot)
District Bharuch
Gujarat

12. Shri S.G Suvera
Headmaster
Panibar Primary School
P O Isari
Taluk Meghrej
District Saharkantha
Gujarat

13. Shrimati Motia Rani
Teacher
Government Primary School
Kuldip Nagar
Educational Block Ambala No. 2
District Ambala
Haryana

14. Shri Piaru Ram Thakur
J.B. T Teacher
Government High School
Nagar
District Kulu
Himachal Pradesh

15. Shri H. Dattatri
Teacher
Government Higher Primary Boys School
Durgigudi
Shimoga City
Karnataka

16. Shri P. Ramaiah
Headmaster
Govt. Nursery & Primary School
Raj Bhavan
City North District
Bangalore Karnataka

17. Shrimati L.E. Bangera
Headmistress
B.M. Higher Primary School
Ullal, South Kanara
Karnataka

18. Shri Pathrosme Ulahannan
Headmaster
Govt. Lower Primary School
Perumani, Vengola
Perumavoor Sub-District
District Ernakulum
Kerala

19. Shri P.S. Ramankutty
Ezhuthassan
Headmaster
Govt. Upper Primary School
Olarikara
Pullazhi P.O.
District Trichur
Kerala

20. Shri K.C. Thomas
Headmaster
Government Lower Primary School
Karinkunnam
via Thodupuzha
Idukki District
Kerala

21. Shri Gazanan Dongre
Headmaster
Government Primary School
Anandnagar
Khandwa
District East Nimar
Madhya Pradesh

22. Shri Madhava Prasad Goswami
Headmaster
Primary School
Sagra, District Damoh
Madya Pradesh

23. Shri Babulal Barange
Headmaster
Subhash Primary School
Kothi Bazar
Betul
Madhya Pradesh

24. Shrimatti Kamala Dubey
Headmistress
Girls Primary School
Mohan Nagar, Sagar
Madhya Pradesh

25. Smt. T. Shankar Vaishampayam
Asstt. Teacher
Navin Marathi Primary School
Shanwar Peth, Pune
Maharashtra
26. Shri Nirwan Krushnaro Lahuji
Headmaster
Nagar Parishad Bangalkar
Primary School
Tumsar
District Bandara
Maharashtra
27. Shri Gulab Rao Jan rao Patil
Headmaster
Marathi Prathamik Shala
Sawargaon (Dukre)
District Buldana
Maharashtra
28. Shri Deochand Daga Patil
Headmaster
Ashram School Chinchvad
Taluk Peint
District Nasik
Maharashtra
29. Shri Pundalik Krishnaji Pansare
Headmaster
Z.P Primary School
Asangaon
District Thana
Maharashtra
30. Shri L. Ram Singh
Head Pandit
Thoubal Girls Lower
Primary School
Manipur
31. Shri Somanath Mishra
Head Pandit
Dasbidyadharpur
Upper Primary School
P.O. Bhimapur
District Puri
Orissa
32. Shri Mohammad Habibulla
Head Pandit
Ram Chandra Feeder
Lower Primary School
At (P O Charampa),
District Balasore
Orissa
33. Shri Gopal Krishan Saini
Headmaster
Government Primary School
Mukhhana, District Hoshiarpur
Punjab
34 Shri Laxmi Narain Sharma
Headmaster
Government Primary School No. 9
Churu
Rajsthan
35. Shri Ram Dhoj Rai
Headmaster
Government Primary School
P.O. Chakung
West Sikkim
36. Shri K. Palaniswami
Headmaster
Panchayat Union Elementary
School
Kavchipalayam, Namakkal Taluk
Salem District
Tamil Nadu
37. Shri K S. Subba Rao
Headmaster
Saroja Kasthuri Rengan
Middle School
68 Big Chetty Street
Tiruchirapalli
Tamil Nadu
38. Kumari Margaret Inbam Albert
Headmistress
Church of South India Girls
Aided Middle School
New Street, Karur
District Tiruchy
Tamil Nadu
39. Shri A Ghouse Mohideen
Assistant Teacher
Panchayat Union Middle School
Katchupalli
Sankari Taluk
District Salem
Tamil Nadu
40. Shri S. Mariaselvam
Headmaster and Manager
Guddiyattam
District North Arcot
Tamil Nadu
41. Shri A. Palaian Nadar Headmaster
Government Girls Primary School
Kaliakkavilai
District Kanyakumari
Tamil Nadu
42. Shri Ram Naresh Maurya
Headmaster
Basic Primary Pathshala
Rampur Sakarwari
District Faizabad
Uttar Pradesh

43. Shri Shivadhar Pandey
Headmaster
Prathmic Pathshala
Domanpur, Saisoul
District Kanpur
Uttar Pradesh

44. Shrimati Shantidevi "Kokila"
Headmistress
Primary Kanya Pathshala
Hamathpura
(Nagar Shetra)
District Saharanpur
Uttar Pradesh

45. Shri Raghubir Sharan Dwivedi
Headmaster
Basic Primary School
Patti Kumhrra
Circle-Chirgaon
District Jhansi
Uttar Pradesh

46. Shri Gajadhar Singh
Headmaster
Primary Pathshala
Barahpur
P.O. Harraiya
District Basti
Uttar Pradesh

47. Shri Pan Singh Negi
Headmaster
Prathmic Vidyalaya
Kichha
District Nainital
Uttar Pradesh

48. Shri Babadin Devbanshi
Headmaster
Primary Pathshala
Kuchriya
District Rae Bareilly
Uttar Pradesh

49. Shri Hirday Narayan Singh
Headmaster
Junior Basic Vidyalaya
Nigoh
Barsathi
District Jaunpur
Uttar Pradesh

50. Sushri Gangamaya Gurung
Teacher-in-charge
Scott's Mission Primary School
Kurseong, Darjeeling
West Bengal

51. Chowdhury Hossain Reza
Head Teacher
Purapara Junior Basic School
Sabaldaha
District Murshidabad
West Bengal

52. Shri Amiya Kanta Maitra
Head Teacher
Rishra Govt Colony
G.S F.P. School
School No. RRSER-23
Rishra
Houghly
West Bengal

53 Shri Harikinkar Roy
Head Teacher
Khichka Junior Basic School
P.O. Kadma
Circle Taldangra
District Bankura
West Bengal

54. Shri Bijoy Krishna Chanda
Head Teacher
Scottish Church Collegiate School
(Primary Section)
32/8 Beadon Street, Calcutta
West Bengal

55. Shrimati Rhoda Phanuel
Asstt. Teacher
Junior Basic School
Jayanti Village Car, Nicobar
Andaman & Nicobar Islands

56 Shri Joti Ram Sharma
Headmaster
M.C. Primary Model School
Palam Village
New Delhi

57. Shri Anand Sinai Kerkar
Headmaster
G P School
Zuna Bazar, Ponda
Goa

58. Mme Lila Coumar De Tayil
Secondary Grade Teacher
Pensionnate De jeunes Filles
Pondicherry □

Indian Educational Review

A Quarterly Journal of Research

The Indian Educational Review, being published by NCERT, is one of the top journals in the field of educational research in India. The Journal has a balanced coverage, including articles on all aspects of education and different fields of educational research, with a definite bias for problems relating to Indian education.

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Further details may be obtained from

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Sri Aurobindo Marg, New Delhi 110016

JOURNAL OF INDIAN EDUCATION

The *Journal of Indian Education* is a bi-monthly periodical published by the National Council of Educational Research and Training, New Delhi.

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The Child and Art Education

In the adult world, the rain puddles end into gutters. But in the children's world, the rain puddles flow into the rivers, and the rivers into the seas.

Their paper-boats have ports of call on the shores of the high seas. Their wanderlust and adventures do not cease till they become adult.

The art teacher has to get into the flow of children's imagination to understand their potential as artists. Because it is only in their imaginative flights their creativity is sparked off.

The starting point of any creativity research should be based on an understanding of children's imagination—an understanding of the world where the reality is hardly different from dreams, where a paper-boat keeps company of Magellan's galleons sailing round the tip of a vast continent into an unknown ocean.